October 12, 2018

Compilation of Public Comments Received on the Draft NEWSVT Solid Waste Facility Certification

Note: Individual names have been retained, identical comments submitted by multiple parties have only been copied once.

I urge you to deny the proposed 51 acre expansion for the Coventry Landfill.

All landfills eventually leak. The Coventry landfill contains waste laden with contaminants commonly found in household waste, including toxic chemicals and heavy metals, along with sewage sludge, asbestos and contaminated soil. Even the two-liner system required for the expansion would over time develop holes that allow leachate, formed by rainwater mixing with the toxins in waste, to leak into groundwater. Communities with landfills owned by Casella, like Southbridge, MA, have had their drinking water contaminated with lead and other toxins due to leachate reaching drinking water. Adding space to the Coventry Landfill increases the possibility of contamination for communities downstream and those who depend on Lake Memphremagog.

Landfills also release methane, a greenhouse gas 86 times more potent than carbon dioxide when monitored over a 20 year period. Even while the Coventry Landfill tries to catch the gas escaping the landfill, it's impossible to contain all the methane leaking into the air. Estimates indicate that as little as 20% of released methane, which is flammable and contains some toxic gases, will be captured by even the best systems.

Vermont does not need this landfill expansion. In recent years, Vermont has passed progressive recycling and composting laws, and these programs are working. Each year, our state produces less and less waste. We don't need to permit another 22 years of landfilling at current rates given our ongoing progress. If this permit is granted, Casella is likely to attempt to use its full capacity -- even if that means taking in more waste from out of state.

Landfilling is an unsustainable solution to a problem our state is already making progress on solving. Please deny the Coventry Landfill expansion proposal so we can keep moving forward.

I think it is horrid that the whole state of Vermont and more are dumping all their garbage on the edge of the BLack River and Lake Memphremagog. Canadians drink that water, what kind of a neighbor are we?? This is not responsible. Plastic liner!!! We know what plastic does, it falls apart. Garbage dump is right on Memphremagog Lake and BLack River. Another poor NEK town targeted by destructive developers who know money talks, the town gets paid off every year, because the town is vulnerable to bribery. Plus, enormous noisy trucks come up Route 100 starting at 6AM or before. Lots of fossil fuel needlessly wasted there. That degrades the people's houses there. The lake !! people use it for drinking, Canadians, and there is no excuse to destroy the 40 mile long lake. Give me a break!! The only landfill in Vermont, taking all of Vermont's Garbage, and also from Massachusetts , Maine, New Hampshire sometimes, some of it could be dangerous from the start we don't know because it is not tested.I wrote Vermont Governor Scott who answered the Waste USA dump so called landfill was fine with him.

This is an economic justice issue as well as a plain old dumping on the NEK issue. There has to be a better solution, decentralize, reduce, test the truckloads. incredibly sloppy that testing is not happening now.

I live in Lowell, have for many decades. Our part of the state has had enough humiliating industrial development ruining a beautiful place. The lake already does not smell very good, what a waste of a natural resource that is.

I urge you to not grant the extension and to close the landfill as soon as possible.

Hi Jeff:

I write to you to voice my strong opposition to the continued expansion of the Coventry landfill. I am a home owner with a house on Lake Memphramagog in Newport Center. I am surprised that the Agency of Natural Resources ever allowed that dump to be placed so near the Black Riiver and to our beautiful lake many years ago. I realize that there is a plastic liner that is supposed to prevent leachade from seeping into the watersheds. However, I have seen what happens to plastic after a few years when covered with soil. Poisonous toxins are bound to leak into our water soon, if they have not already begun to do so. I am not affected by the odor of the landfill because I live about 4 miles north of it. However, I have relatives who live about one mile from it and they smell it badly especially when there is a south wind. They are a young couple with children and they will probably have difficulty selling their home when they decide to move elsewhere.

Why do we have to take responsibility for the garbage of the whole state here? I have learned that they are even taking garbage from some towns in New Hampshire near the state line. Every county should be responsible for developing and maintaining a landfill of their own. Can you imagine the outrage of Shelburne, Burllington and Colchester residents if you were to approve a landfill as close to Lake Champlain as the Coventry landfill is to Lake Memphramagog? It just would not be allowed, would it?

Mr. Bourdeau: I am a new full-time resident to Craftsbury and only learned today of Coventry Landfill's application to expand its landfill by 51 acres. While I have not had time to research all of the facts associated with either this company or the state's need for additional landfill space, I can definitely make two statements:

- Having just relocated to Vermont from Austin,Texas, in part because of Vermont's commitment to stewardship and sustainability, I sincerely hope the State is actively seeking methods to divert waste/set zero waste goals, rather than expanding the amount of toxins and waste buried annually.

- I live on Vt Rt 14 on Lake Eligo. This is a primary route for Coventry/MBI trucks headed to and from the landfill. Under no circumstances should that landfill be expanded until both Coventry and the trucks that supply it are held responsible for observing speed limits and other public safety considerations. I invite you and Vermont state officials to spend a day or more on my screen porch before you make this decision: the speed at which supply trucks fly through a posted summer camp/residential area, next to a Class I wetlands, will chill your spines. Just one accident would be a major human or environmental disaster.

Until the involved companies demonstrate a respect for public safety, the environment, and the law, they should not be granted expansion of this business. We need more responsibility regarding safe disposal of less human waste, not less responsibility for safe disposal of *more* waste.

I welcome information on how to participate in public hearings on this application.

Please consider this to be my public comment on the upcoming permit for the landfill in Coventry, VT.

Fact Sheet- Page 9, #3- I would address the objectionable odors off-site of the facility.

It is false to claim that "odors from the existing operations have not been an issue." Several of us from Lawson/Maple Ridge have called in odor complaints repeatedly! I personally have called in,and reported odor problems for more than 2 years.

Page 10, #3 Maple Ridge Road does NOT appear to be NE of the facility.

NW would be correct, making breezes from the SE to be what carries odors directly to our LAWSON/MAPLE RIDGE. Please include Lawson Ridge, as at least 2 of us residents on this end of the Ridge have been consistently reporting "objectionable odors" issues.

As to "visual impact" there are certainly open areas not only on Lawson Ridge but also south of here on the portion of the Ridge renamed Maple Ridge where our residents look down on or ACROSS TO the landfill operation. Check with the Robert Fortunati, Ed Darby and the Desantos families. We can see the black plastic face of the landfill from our pasture and we are at the far end of Lawson Ridge.

Page 16, J "odor control plan"

Page 19, #6 "Prevent odors"

I call often to report strong odors of garbage and morgue (dead body smells).

I am hopeful that these odor issues will be minimized.

I hope this email finds you well. I am concerned about the request for the expansion of the Coventry Landfill. I am a citizen who is deeply in love with the nature of Vermont. Would you mind telling me what are the motivations of the landfill owner to request an expansion? Also, I would like to know what your thoughts are about it.

I am writing as a Coventry town taxpayer. I strongly oppose the requested long term expansion being proposed for the Coventry Landfill.

The people of the Northeast Kingdom, our Quebec neighbors to the north, and all future generations deserve better oversight from the obvious unpreventable damaging effects to the area watershed from the EXISTING landfill. Enough. Coventry Landfill never ever should have been allowed to be located so close to our pristine waters to begin with. I fear permanent damage has already occurred. We certainly can't afford to add onto it.

Please help protect us along with your children!

I respectfully plead with you to NOT permit expansion of the Coventry VT Landfill, ever.

I am a resident of Newport City.

- It is a known fact that lined landfills leak leachate, and will leak even more as time proceeds. Even installers of these linings understand this, and deliberately have to make cuts in the lining material.
- This leachate already contains an extremely high number of pollutants, including toxics.
- Our city water supply wells are located in significantly close proximity to this landfill.
- The landfill itself sits in the Memphremagog watershed, standing ready to pollute, even with potential carcinogens and other toxic chemicals, a treasured and beautiful International body of water.
- The damage has already been started to our environment.
- There is an ecologically sensitive and protected Wildlife Management Area which has apparently been politically situated to nearly surround portions of the landfill, but end just practically at its borders -- an impossibly illogical survey design. This area is also bounded -- within sight -- by a major river (the Black), and the highly valued waters of Lake Memphremagog, one of the largest lakes in our State.
- It is patently unfair for all the State's trash to go only to our already economically disadvantaged Northeast Kingdom, not to mention trash from other sources even outside Vermont.
- Instead of this sole Statewide landfill site, numerous *regional landfills* would not only be:
  A) fairer than this sole Coventry site, but would also be
  B) more manageable, and

C) far more fuel-conserving in that the tremendous amount of tractor trailer-sized loads of trash constantly transporting trash to Casella's Coventry site at the extreme northern end of our State:

1) waste fuel, adding to air pollution,
2) waste time,
3) vastly increase road traffic hazards,
4) and radically increase the damage to our road infrastructure, especially in our corner of the State.

- NO expansion can be tolerated by any of the thinking people of our State. Already, all the material curently, but inappropriately, stored at this landfill should be exumed and removed to a less sensitive water supply location elsewhere, much further from drinking water and lake and river resources, in order to meet the State's mandated water quality standards.

Thank you for considering these facts. I repeat, many of us are unalterably opposed to this expansion proposal, even though the current Casella Coventry landfill site offers some employment.

To the Vermont Department of Environmental Conservation:

Memphremagog Conservation Inc. (MCI), based in Magog, Québec, is a volunteer organization that has been operating for more than 50 years with a membership of over 600 households. Our mission is to protect the health of the waters and watershed of Lake Memphremagog. A few days ago, we found out that the Agency was holding a public consultation regarding a Draft Certification and Fact Sheet issuing to New England Waste Services of Vermont Inc. (NEWSVT) for the landfill facility located in Coventry.

With this letter, MCI wants to express his strong opposition to the expansion of NEWSVT's solid waste disposal plant in Coventry, near Newport.

Operated by Casella Waste Systems, the Coventry landfill site is the largest waste management facility in the State of Vermont. It is located adjacent to Black River, the principal tributary of Lake Memphremagog. Over the years MCI has watched with alarm as the operations of NEWSVT have gradually increased. Its starting capacity of 270,000 tonnes per year was raised to 370,000 by 2005 and to 600,000 tonnes per year by 2013. Casella is now applying for a 51-acre footprint expansion of the landfill, which would allow it to bury 500,000 tons a year of waste there, estimated to be the equivalent of 71 000 trucks a year[1], for 22 additional years.

Located as it is upstream from approximately 185,000 people in Quebec who depend on the watershed for drinking water, MCI believes that the facility represents a real and potential danger and should never have been permitted to exist. Casella buries not only municipal solid waste, but sewage sludge, asbestos, ash, and contaminated soil at Coventry Landfill. Municipal solid waste, the waste from homes, businesses and institutions, contains more than 85,000 contaminants, including heavy metals, volatile organic compounds, pharmaceuticals, and other contaminants of emerging concern.

The proposed Coventry Landfill expansion would be required to have a two liner composite system. The liners often develop holes during installation, and they develop holes and stress cracks over time. Because Lake Memphremagog is a drinking water reservoir, MCI believes that the precaution principle must be applied. The last landfill on the Canadian side of Lake Memphremagog watershed closed many years ago. If Lake Memphremagog was recognized as a drinking water reservoir by the Government of Vermont, the establishment of new Waste management zones would be prohibited following the Vermont Water Quality Standards[2].

MCI also asks for a stop to the treatment of the leachate from the site at the Newport sewage wastewater plant. The Newport wastewater treatment plant was designed to treat municipal wastewater, not landfill leachate. The last Whole Effluent Toxicity (WET) Test required at the Newport plant outlet was in 2008 and Casella has treated leachate at the plant since 2009. The WET test is used in Vermont and Quebec wastewater treatment plants to determine whether a wastewater discharge will have toxic effects on the organisms in the receiving water. The fate of leachate contaminants throughout the wastewater treatment process and the cumulative effects in Lake Memphremagog are unknown. If Lake Memphremagog was recognized as a drinking water reservoir by the Government of Vermont, the discharge of wastes would be prohibited regardless of the degree of treatment provided following the Vermont Water Quality Standards[3].

Also, the water quality of the Lake has not improved over the last decade and with more than 4000 boats on the Lake, the construction of many golf clubs and residential developments, Lake Memphremagog continues to be sensitive to anthropogenic pollution.

In closing, we reiterate our strong opposition to the expansion of NEWSVT's solid waste disposal plant in Coventry, to the leachate treatment in Newport's wastewater plant, and our desire to see Lake Memphremagog be recognized by Vermont as a drinking water reservoir, even though all drinking water intakes are located on the Canadian side of the border.

I am writing to oppose the Coventry Landfill's expansion request, to delay it, or to attach strict conditions about foul odor, heavy truck traffic on secondary roads, or for required samples to be taken and lab tested by a state employee, from every truckload of garbage before dumping. I am very concerned about this landfill's location, and it's potential to pollute groundwater and surface water in the wetlands that edge this property and lead into the Black River, which leads into our beautiful Lake Memphremagog, home to many species of fish and wildlife, beautiful recreation attraction, and a major portable water source for thousands of our neighbors in Canada. I am not convinced that those plastic liners will not leak and destroy the ecological system here for centuries, denying one of the most beautiful parts of Vermont for future generations. This is the wrong spot for expansion motivated by greed , and selling out the future for the next generation of Vermonters.

You probably will not remember me from back in 1992-3 when Casella was planning to build a mega landfill in Newbury, Vermont at exit 17. It had formerly been a local town dump before Casella purchased it and renamed it "Newbury Waste Management. My husband Larry and I along with a neighbor and part-time resident Warren Kaplan learned, accidently, about Casella's plans for expansion. From the moment we learned of Casella's plan we worked tirelessly for the next eight years to make sure there would be NO new landfill adjoining our properties and the Wells River. What we learned, with the legal prowess of Warren Kaplan, was of the all too numerous violations of Casella at THAT site as well as just about every other site where that company operated landfills. You may remember the "Green Book" put together by Warren Kaplan that listed those Casella violations in great detail.

Larry and I were dairy farmers who's farm spanned both sides of the Wells River adjacent to the proposed landfill expansion site. Initially we were not considered "adjoiners" because Casella's permit people were convinced that the old Wells River/Montpelier railbed (now a bike trail) was an "impervious shield" that would prevent any landfill leachate from reaching our property or the Wells River. How wrong they were! We also brought to the attention of DEC the several groundwater seeps coming from the landfill, through our property into the Wells River. I might add that the monitoring of the "monitor wells" on that site continue to this day. There is a lot to learn from the Casella behavior at the Wells River site.

Does this old story ring a bell with you. I'm somewhat surprised that you've stayed with the Solid Waste Division as your skills are many. Here we are today looking at Casella's proposal to expand, again, the Coventry site that was an extremely poor site to begin with for many, many reasons. I know YOU know what I mean!

Would it be possible to have a conversation with you (via telephone) about a Coventry Landfill incident that I am privy to and would very much like to share with you?

Sadly, both my husband Larry and Warren Kaplan have since passed away---both from cancer. I have moved up-the-hill into Ryegate and continue to farm but now on a much smaller scale. Our old farm along the Wells River continues as a dairy farm with different owners now.

Thank you.

Hello: I respectfully request that the following memo from the Hon Denis Paradis, representing the eastern townships of Quebec iincluding the cities of Magog and Sherbrooke, writing as a member of Canadian Parliament, Ottawa, together with his two letters respectively to Governor Phil Scott, and to Julie Moore, Secretary of the Agency of Natural Resources, be included as part of of the formal comments received as part of the public record on the matter of Casella's Application to Expand the Coventry Landfill and to extend its permit period of operation. A reporter from the CBC News , Claude Rivest, transmitted this to me about 2 hours ago. Would respectfully request your acknowledgment of receipt and inclusion of the full message from the Hon Paradis intoyour public comment record. Thank you,

I am writing out of serious concern for the request to expand the landfill in Coventry, VT. It has always been a cause of disbelief for me that a State that continually touts itself as being on the forefront on environmental issues would have only ONE landfill for the entire State that is situated on the shores of a major lake that provides the only source of drinking water for some of its residents!! How dumb!!
It has been my belief from the beginning that there should be a working landfill in EVERY county in the State--14-- that would accept local refuse for each area as well as recyclables generated locally. The tonnage that is being transported over all of the roads throughout the State year round will continue to degrade our roads and pollute the air with exhaust from the dirtiest fuel we have available--diesel. How dumb!!
I think it is time for our Environmental Agency, our Governor and our legislators to right this wrong before permanent damage is done.

Thank you for considering my concerns.

I write to you to voice my strong opposition to the continued expansion of the Coventry landfill. I am a home owner with a house on Lake Memphramagog in Newport Center. I am surprised that the Agency of Natural Resources ever allowed that dump to be placed so near the Black Riiver and to our beautiful lake many years ago. I realize that there is a plastic liner that is supposed to prevent leachade from seeping into the watersheds. However, I have seen what happens to plastic after a few years when covered with soil. Poisonous toxins are bound to leak into our water soon, if they have not already begun to do so. I am not affected by the odor of the landfill because I live about 4 miles north of it. However, I have relatives who live about one mile from it and they smell it badly especially when there is a south wind. They are a young couple with children and they will probably have difficulty selling their home when they decide to move elsewhere.

Why do we have to take responsibility for the garbage of the whole state here? I have learned that they are even taking garbage from some towns in New Hampshire near the state line. Every county should be responsible for developing and maintaining a landfill of their own. Can you imagine the outrage of Shelburne, Burllington and Colchester residents if you were to approve a landfill as close to Lake Champlain as the Coventry landfill is to Lake Memphramagog? It just would not be allowed, would it?

This email is to state my objection to the extension of the Coventry landfill.
I have been a resident of the area all my life. I oppose our area being the dump for all Vermont and parts of other States. I can smell this landfill from my house too often. I also fear the long term affect of leakage from the baggies into our #1 resource (Lake Memphremagog) . We are a small community was very few votes. The state of Vermont should protect us from forcing this dump into our community for the for seeable future and possibly permanent damage.

I am opposed to the expansion of the Coventry landfill. Its location, close to Lake Memphremagog, is already bad and to expand it would be worse.

I understand that you are coordinating the permitting of the application by Casella to Vermont's Agency of Natural Resources for an expansion of the Coventry Landfill by 51 acres and the permit to dump waste for 22 years. I oppose this expansion despite the fact that I live nowhere near it. The disposal of waste is an issue that needs to be borne equally by the different counties in this state. Out of sight out of mind is no solution. To put a huge landfill in Coventry where people are poorer than in other parts of the state and are perhaps less organized in opposing it, is simply not fair.

There are better ways to deal with this problem than expand a dump that is poorly situated. Poisonous leachate will eventually pollute groundwater and surface water in the wetlands at the edge of Coventry Landfill. Those liners inevitably leak. The Black River, South Bay, and Lake Memphremagog (the drinking water source for 150,000 of our Canadian neighbors) will become polluted. Vermont's amazing, pristine waters are not to be taken for granted. The Coventry site is the wrong location.

The Windham Solid Waste Management Division has managed to divert 64% of all trash from the landfill in Brattleboro. It seems to me that acceptance of this application as is would be premature. The Coventry Landfill has four years of existing capacity. Why hurry to nearly double its size? I think that the State should delay the permit to expand while it establishes a decentralized plan for each county (or groups of counties) to implement the Universal Recycling Law and to reduce waste thru recycling and composting. It works! Give it a chance.

I understand that there are quite a few 'benefits' that come with the acceptance of this application for enlarging the landfill: Residents pay just 10% of taxes on assessed value and Casella pays the rest and of course the town is benefitting in myriad ways just as they did down here in Vernon from VT Yankee. And ANR stands to get a hefty annual permit fee of a $187,000.

Please oppose this expansion of the Conventry Landfill or at the very least delay its acceptance until there are further restrictions on what can be dumped there and time is given for full implementation of the Universal Recycling Law.

Thanks for reading this.

I am writing on behalf of our avid followers to urge the state to deny Casella's NEWSVT proposal to expand the Coventry Landfill. In this time of anthropomorphic climate change, fossil resource exhaustion and rampant disease the last thing we should be allowing is more outdated and dangerous systems like a "modern" landfill. A landfill is not a solution. It is a symptom of a chronically ill society. Is this the best we, as a society, can do? As they relate directly to landfills, are we doing our best when we continue to permit the creation, marketing and sale of 1) plastic products, 2) other industrial chemicals and compounds (there are currently some 50,000 synthetic chemicals in commerce), 3) man-made materials that have lifespans measured in thousands of years? Are we doing our best when we persist in the reliance on sanitation systems that create toxic effluent, toxic sewage sludge and toxic septage? Are we doing our best when we rely on centralized "dumps" (requiring trucking vast quantities of materials over great distances) – that only further enable the "out of sight out of mind" mentality that plagues our existence – for the disposal of society's cast offs? Are we doing our best when all we can think to is congregate the toxins associated with our industrialized society into a giant hole in the ground?

When the state denies this proposal (which it has an obligation to do), the state will force all of us to have discussion about what we as a society are doing and where we are headed. Tacit rubber-stamp approval, on the other hand, moves us inexorably closer to our own wallowing demise. I urge the state to deny this proposal, thus forcing lawmakers and community members to the table to discuss real solutions to our waste management dilemma.

Moving forward, I demand that we do things differently. As it currently stands, we don't have future. Let that sink in. Our species and much of the natural environment as we know it, doesn't have a future. If we accept this as the reality of our situation, it is obvious that this proposal must be denied and that we must come together to right this severely listing ship. Current and future generations of humans rely on us getting this right. And an expanded landfill is the polar opposite of us "getting this right".

Thank you for the opportunity to weigh in on this issue and thank you also, in advance, for doing the right thing by the people of this state, of this nation and of this planet.

I wish to add my voice to those opposed to the planned expansion of the Coventry Landfill. As a retired ecologist, I am shocked to learn that the existing landfill is adjacent to a wetland that is connected to the Lake Memphremagog watershed. Landfill liners are known to leak with time, and will negatively impact the ground water and watershed which is the source of drinking water for thousands of people.

Please consider this to be my public comment on the upcoming permit for the landfill in Coventry, VT.

Fact Sheet- Page 9, #3- I would address the objectionable odors off-site of the facility.
It is false to claim that "odors from the existing operations have not been an issue." Several of us from Lawson/Maple Ridge have called in odor complaints repeatedly! I personally have called in, texted and reported odor problems for more than 5 years.

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Please include Lawson Ridge, as at least 2 of us residents on this end of the Ridge have been consistently reporting "objectionable odors" issues.
As to "visual impact" there are certainly open areas not only on Lawson Ridge but also south of here on the portion of the Ridge renamed Maple Ridge where our residents look down on or ACROSS TO the landfill operation. Check with the Robert Fortunati, Ed Darby and the Lady Doctor's families.

Page 16, J "odor control plan"

Page 19, #6 "Prevent odors"

As I stated in the meeting in Coventry recently I have communicated with you Jeff, Barb Schwendtner, Russell Anderson, also Lenny at the landfill and regularly text Shane, one of the landfill workers. I have recently met with Jeremy Labbe and Shane.

I am hopeful that these odor issues will be minimized. The value of my property has been impacted by the problem. My peace of mind has been drastically affected when I so often have to close windows, deal with smells that may taint my drying laundry on the line, or inhale the objectionable odors as I work outside mowing, gardening, landscaping, relaxing.

RE: Draft Certification
Page 31, f
"All practicable steps to prevent odors...emissions or discharge of contaminants..."

I repeat, I hold out hope that these odors problems will be minimized so that I may enjoy my home, in spite of its location on the Ridge NW of the Coventry landfill.

Pease accept the following as a supplement/addition to the formal comments submitted previously. Thank you. Respectfully

1. Ecologically and environmentally wrong site location for any dump, much less a mega-landfill.

2. Given this, yet to be disputed publicly to my knowledge, what was the logic employed in the VANR's approval of a variance, granted 11/2016 to the owner, to encroach closer into buffer area of the designated wetlands? Please make available a copy of the request for variance, warnings to the public, public hearings held, minutes of those hearings, and the testimony of the ANR ecologist, Shannon Morrison, if any on this issue. If not, what is rationale for not requiring ecological input?

3. Are public records available of ANR or ANR-hired field inspectors who certify en situ the public oversight and approval of the hot welding of synthetic liner seams during new liner installation? Such inspections are universally required and accepted by public bodies in a variety of jurisdictions responsible for the oversight of public or private construction projects to warrant their having met public health, seismic , and additional construction standards

4. PFOA and PFOS have been detected in leachate derived from the Coventry Landfill. Have these reports been made available to the public? Have they been corroborated or refuted by a third party? At a time of revision of statewide standards(Vermont State Toxicologist on WDEV radio) for the family of PFOA synthetic chemical compounds toward a more rigid standard (some researchers say 7 to 10 times more rigid) than the current 20ppt, and without third-party objective analysis of current rates of PFOA contamination, it makes no sense to pre-approve or to approve this

application for landfill expansion, potentially endangering Canadian grandchildren, not yet born. PFOA persists in the environment, is soluble in water traveling north through the lake to Sherbrooke's potable water intake. Are PFOA's in surface water treatable for drinking? Please explain. In an era of federal EPA incompetence and disarray, State vigilance is more vital than ever.

5. To my knowledge, municipal water systems being paid by Casella to treat large volumes of Coventry landfill leachate, are not capable of treating industrial contaminants like PFOA suitably for drinking. Such systems, as Newport's are designed to treat residential or domestic water waste. What happens should these municipal systems close to the treatment of landfill leachate, if and when PHOA contaminant standards are not met? Where does the liability lie? Should the landfill be permitted to operate for 22 more years, if during this period, municipal water treatment plants cease accepting Casella leachate? Please explain this eventuality.

6.What percent of methane emissions released from the contained leachate at bottom of Coventry landfill is contained and used as a fuel/and or flared.? Literature explains that 100% capture, while an ideal, simply is not possible. Are any provisions being made to require the applicant owner to conduct on-going methane stripping of leachate? What are the implications of loss of residual methane from the Coventry dump, to the atmosphere?

7, Amateur observations of an estuary canal from the BlackRiver through the extensive wetlands at the perimeter of the dump and at points closest to the dump, show large quantities of surface matter of yellow-green-brownish bubbly material through which we paddled. Larger bubble size is 2 inches in diameter, one inch high at center. Please provide state ecological identification and analysis records on file at ANR of these materials found closest to the landfill. If they are from agricultural run-off sources, please explain.

Your consideration in replying to the questions raised in this formal comment is appreciated. I stand to be corrected, but It is my understanding that the State ANR is to address each comment and question raised.

I am opposed to the expansion of the landfill in Coventry. There are many reasons for this, not the least of which is the obnoxious odor that already permeates from the existing site. The nearby water sources are a huge source of concern, increased efforts and resources for recycling could be put in place to reduce waste could be put in place, testing on each truck should exist to make sure that toxic chemicals are not entering our water resources,

What is the rush to expand the landfill? Doesn't it exist in its current form for four more years?
Why is Montpelier OK with making a part of the state the dumping ground for the entire population of VT? Would you want it in your town?
The state continues to fail to create any sort of environmentally friendly long term plan to deal with waste.
The rush to expand the Coventry landfill is not the answer.

I am opposed to the expansion and ask that you deny the permit in its current form.

Thank you

SUBJECT: Request to suspend public hearings regarding the expansion of the Casella Waste Management landfill site in Coventry, Vt.

Dear Madam Secretary,

In response to growing public concerns over water quality in Lake Champlain and Lake Memphremagog, Global Affairs Canada announced, in October 2017, that Canada and the United States had asked the International Joint Commission (IJC) to further examine the issue. The IJC has initiated the study.

Further to the concerns expressed by my constituents and petitions presented in the House of Commons, I asked Ms. Chrystia Freeland, Canadian Minister of Foreign Affairs and American Secretary of State Mike Pompeo to request an environmental impact assessment regarding the controversial location of the **Casella Waste Management** landfill site in Coventry, Vermont. The request is still under evaluation at the IJC.

Public hearings are currently being held regarding the expansion of the original site. It is important to note that the site is located right next to Black River, which flows into Lake Memphremagog.

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In addition, the leachate from the site (12 tanker truckloads per day) is summarily treated at the wastewater treatment plant in Newport before being discarded in the lake, without thorough testing for potential contaminants.

Given that none of the previously announced studies has been completed, I am calling on you to suspend the public consultation process until the IJC reaches a decision regarding water quality, as well as the current and potential impact of the landfill site in Coventry.

Thank you for your consideration.

Sincerely,

The Honourable Denis Paradis, PC
Member of Parliament for Brome-Missisquoi.

I am writing today to express my objection to the waste site expansion proposed by the Casella Company for their site in Coventry for the following reasons:

I do not want out of state trash dumped on our state lands. I was incredulous to learn that the State of Vermont allows waste to be trucked here from out of state. I do not believe it is the best interest for Vermonters to allow the depositing of waste from outside the state. This is not the legacy I want to leave to my children. I will be contacting my legislators to see how we can change this policy in the next session.

Contaminating Canadian drinking water is unconscionable and hurts our tourism economy. At a time when tourism from Canada is down due to the exchange rate and tensions around immigration, state agencies should not be making the situation worse by allowing poisoning of Canadian drinking water.

Casella's practices do not represent "best practice" and should be curtailed, not expanded. When I lived in the Montpelier area I used the Casella Company for my family's waste removal. After I moved to Bethel, I was introduced to our municipal site. The difference between the management of these sites is like night and day. At the Bethel municipal site reuse, recycle and reclaim are the central tenants promoted by the dedicated, friendly staff. At Casella's central VT site recycling was not encouraged, but reluctantly accepted and the staff was limited and taciturn. At the Bethel municipal site residents are encouraged by staff to share any reuse and recycling ideas and the staff sets up signs and bins for the reclamation. At the Casella site, the staff is there to take your money. Period. IMO, Vermont should be more vigilant with commercial, for-profit waste disposal companies, they are in it for the money which means more trash dumped in Vermont's beautiful landscape. I encourage you to visit the two sites and see the difference measurable in tons of waste and toxic substances. We need to reign in companies like Casella and expand sites like the Bethel municipal site into other areas of the state.

Thank you for your service to Vermonters.

Town of Albany

P.O. Box 284 / 827 Main Street / Albany, VT 05820 / 802-755-6100

July 17, 2018

WHEREAS –

The Coventry Landfill site is positioned at the edge of a wetland, and at the source of several major waterways, including an international lake serving as the drinking water source for thousands of Canadians. This site location is also in a unique area which affects the recreational uses for tourism and residents of the Northeast Kingdom of Vermont.

The responsibility of providing clean water is critical for future generations who will depend upon the decisions made now that affects our waterways.

Given that PFOA has been found in several areas in the state affecting drinking water sources for many of Vermont's citizens, we feel great concern about the degradation of landfill liners and the possibility of poisonous leachate entering ground and surface waters.

Since the Coventry Landfill has an existing contract to receive solid waste at current levels, we feel more time is needed to explore these concerns and assure the quality of water for generations to come will not be compromised.

THEREFORE –

The Albany Board of Selectman and our local State Representative requests the Vermont Agency of Natural Resources delay the 52 acre expansion approval of the Coventry Landfill site as operated by the Casella Waste Management, while the State of Vermont explores the impacts on our environment and the potential harm to this critical watershed area of two countries.

Signed:

S Christopher Jacobs, Albany Selectboard Chair

Phillip Beaudry, Albany Selectboard

Rep. Vicki Strong, Orleans/Caledonia 1

Dated: 7/17/18

Following up my earlier email, I am writing now to both direct your attention to the following Vermont Digger article:

https://vtdigger.org/2018/07/17/quebecois-lawmaker-arms-vermont-landfill-expansion-plan/

…and to lend my support to the request made by Canadian parliamentarian Denis Paradis to, in his words, "…suspend the public consultation process [concerning the proposed NEWSVT expansion] until the IJC reaches a decision regarding water quality, as well as the current and potential impact of the landfill site in Coventry." Our neighbors to the north have a right to protect their drinking water supply from harmful landfill leachate and, as a good neighbor, Vermont must step out of the way to allow the environmental review of the impact of the Coventry dump to be assessed by whichever entity(ies) is/are chosen to produce such a study(ies).

In my view, given all we already know about the harmful effects of landfills, the State of Vermont should preempt the need for such a study by immediately denying Casella's expansion request and by taking steps to permanently close the Coventry Landfill.

Thank you for returning my call, a pleasure to speak with you.

Please give me guidance on making an official comment regarding the expansion of the Coventry Landfill project.

Also, is there a document I can access regarding any requirements for odor control and compliance under their permit?

I live in Coventry on the ridge across from the landfill on the Newport end of Lawson Ridge and often experience bad odor days.

I report the odor complaints directly to Casella and want to confirm that my complaints are being duly reported/recorded.

I also would like guidance on any safety or health concerns or precautions that should be taken during these odor events,

I often garden and spend time outside with my horse. Is breathing in these odors toxic or harmful to my health?

Thanks in advance for you thoughtful considerations in this matter.

I am writing to ask you to deny the proposed 51 acre expansion for the Coventry Landfill.

All landfills eventually leak. The Coventry landfill contains waste laden with contaminants commonly found in household waste, including toxic chemicals and heavy metals, along with sewage sludge, asbestos and contaminated soil. Even the two-liner system required for the expansion would over time develop holes that allow leachate, formed by rainwater mixing with the toxins in waste, to leak into groundwater. Communities home to landfills owned by Casella, like Southbridge, MA, have had their drinking water contaminated with lead and other toxins due to leachate reaching drinking water. Adding space to the Coventry Landfill increases the possibility of contamination for communities downstream and those who depend on Lake Memphremagog.

Landfills also release methane, a greenhouse gas 86 times more potent than carbon dioxide when monitored over a 20 year period. Even while the Coventry Landfill tries to catch the gas escaping the landfill, it's impossible to contain all the methane leaking into the air. It is estimated that as little as 20% of released methane, which is flammable and contains some toxic gases, will be captured by even the best systems.

Finally, Vermont does not need this landfill expansion. In recent years, Vermont has passed progressive recycling and composting laws, and these programs are working. Each year, our state produces less and less waste. We don't need to permit another 22 years of landfilling at current rates given our ongoing progress. However, if this permit is granted, it's likely that Casella will attempt to use its full capacity allowance however necessary -- even if that means taking in more waste from out of state.

Landfilling is an unsustainable solution to a problem our state is already making important progress on solving. Please deny the Coventry Landfill expansion proposal so we can keep moving forward.

I'm writing to request an extension of the public comment period and a second public hearing before Casella's request to expand the current capacity of the landfill is granted. I ride my bike through this watershed area on a regular basis, and the location of the landfill and the frequency of the loads currently coming into it are of great concern to me. The site is eventually going to cost the state a ton of clean up funds, and you can bet Casella will weasel out of any responsibility. It is way better to keep these rivers and the lake clean than it will be to try and mitigate the damage when the toxins in the existing landfill inevitably flow downhill. Casella's profit will be all Vermonter's loss.

I live in the vicinity and will be impacted by the landfill. I have concerns about the expansion, and was not aware of the public hearing and comment period. I am requesting an extension of the public comment period and a second public hearing so that more concerns can be shared.

It is necessary to extend the time frame for public hearings on the expansion of the Coventry landfill so that all voices may be heard. The environmental risk is too great, affecting watershed beyond Coventry, toMemphremagog and beyond. Environmental impact once it occurs will be irreversible and harmful to humans and wildlife.

Folks,

I would like to request a second public comment period for the Casella landfill expansion.

Please deny the proposed 51 acre expansion for the Coventry Landfill !

I'm sure you've already seen (many times) my reasons for asking this. I so hope you'll do this.

Re Casella waste/Coventry

The one public hearing was not warned such that people in our area of the Northeast Kingdom knew about it.

The Albany Selectboard will "formally" request a second opportunity for the public to be heard. In order for us to do this, we have to meet legal requirements for our own decisions, which means notice and agenda for our own Selectboard meetings. Then we must publish at least 15 days in advance a "Warning" of a public meeting we wish to hold on the subject of the Coventry Landfill Expansion. This puts us legally beyond the July 20 comment deadline which you issued on July 3.

We therefor request your Agency to extend the comment deadline two weeks until August 3, in order for us, realistically, to meet the legal requirements for full and transparent notice of a public meeting on this important subject.

We request this opportunity to allow our residents to speak and be heard at a meeting we initiate in view of your Agency's decision not to hold a second public hearing.

Albany lies within the Black River and Lake Memphremagog watershed. We have a direct interest as well because of the increase in heavy truck traffic on Rt.14 through our town center.

Your prompt response is appreciated.

Dear Gentlemen
I am writing to express my concern regarding the Coventry Landfill expansion. I was not aware of the hearing until I recently read an article in the Chronicle on the expansion. As an area resident, I am very concerned about the expansion and would like the hearing period extended to allow more local residents to voice their concerns. I live on the Barton/Irasburg town line and when the wind is right, we can smell the landfill. Since Vermont relies heavily on the travel/tourism industry and an expansion of the landfill potentially affects our air and water quality, this decision should be more fully vetted with more input.

As discussed during our meeting at NEWSVT on 7/2; please consider the amended language below in **bold print;** 9th bullet, Section 2.1 of the Facility Management Plan.

We are seeking approval to add this language to our Draft Facility Operating Plan which is a component of the Draft Facility Certification;

"Special solid wastes from outside Vermont which are not hazardous and have been approved by NEWSVT and the Solid Waste Management Division may be accepted. Special solid wastes from inside Vermont which are not hazardous and have been approved by NEWSVT may also be accepted. This would include Ash residue that could be mixed with sludge to control nuisance odor; "

During our discussion on 7/2, we indicated we would request this revised language prior to comment close and as mentioned, we are confident that if waste Ash can be resourced, it will assist us with controlling nuisance odors by mixing the Ash with sludge prior to burial.

Thanks in advance for your consideration.

To the Vermont Department of Environmental Conservation:

In my opinion, the New England Waste Services of Vermont should not be granted a 10-year certification for the continued operation of the existing facility and should be prohibited from expanding the landfill. Allowing a 50-acre expansion will allow New England Waste Services of Vermont owned by Casella Inc twenty-two years of landfill operating life, and will nullify the original intent of the legislature when they enacted Act 78. Town landfills were closed through the regulatory process and were provided statewide incentives for the closing process. The legislature envisioned that area wide landfills would be created and used by consortiums of adjacent towns. The creation of one mega landfill at the far end of the state was never the long range goal for the legislature regarding local wastes.

The Casella landfill in Coventry, Vermont is a complete monopoly in regards to landfill in Vermont. Its continued perpetuation is the result of the Department of Environmental Conservation in the permitting continued expansion of the landfill area for statewide and adjacent state wastes of all types. The latest request for a 50 acre expansion that would allow for a future twenty-two operating landfill area is a prime example of this policy. It outright discourages the creation of area wide landfills by town consortiums or trash generators. What entity would want to invest in a landfill or engage with activists that do not want a landfill in the backyard when there is one so readily available. While Casella itself would most probably benefit due to transport efficiencies from an area wide trash-shed in the Chittenden County area it has no incentives to create one.

In my opinion, the Department of Environmental Conservation should grant Casella a very limited expansion permit with conditions in order to incentivize town consortiums and trash generators to build their own local landfills. A very limited expansion permit will send a message to everyone involved in trash that the Casella landfill site in Coventry is not a timeless and endless place to dispose of their waste. While the state of Vermont can't require landfills to be created, it can, through the regulatory process and financial incentives, encourage new landfills to be built. The state of Vermont and the Department of Environmental Conservation bear a greatest responsibility in crafting a solution to the state wide problem of disposing of waste in a more equitable and dispersed way. The Northeast Kingdom does not want to bear the onus of being the only site, or bear all the damage to its limited infrastructure, or bear the risk to its watersheds and resources. The truth of this matter is the scale of the Casella landfill site in Coventry is incredibly large. Increasing its size and complexity will only exacerbate the damage to the roadways that serve it and the impacts it places on adjoining communities. Simply put, we don't want to be the State of Vermont's sole dumping ground nor do we want to bear the

damage it causes. Nor do a hundred and fifty thousand of our Canadian neighbors who use Lake Memphremagog as their primary drinking water source.

A very limited expansion of the Casella landfill in Coventry should allow approximately one year of capacity. A one-year expansion puts all generators of landfill on notice that an alternative solution must be worked on. Everyone in the market place respects uncertainty and a one-year expansion informs everyone the Casella landfill for the entire state and adjacent states isn't going to be long term.

The Department of Environmental Conservation conditions for a very limited expansion should be:

1. All landfill tractor-trailer traffic needs to access the Casella landfill from I-91 via the Orleans exit to Route 5. This condition shouldn't affect the tippage fee at the landfill but will certainly increase the hauling fee for many of the western towns in Vermont. Local haulers that are not tractor trailers would not be affected by this change. This condition creates a financial incentive through the increased hauling fees for entities that have reloading stations hauling to the Casella landfill. This traffic requirement is no different than the Town of Newport's requirement that no Casella traffic access the landfill through its city. It is also similar to the requirement for the company OMYA for the haulage of Talc through the town of Windham for noise and traffic purposes.
    a. The Department of Environmental Conservation should require designated traffic routes by tractor-trailers to Casella because of the ongoing damage they create to the few state west to east routes Route 14, Route 105, Route 58, and Route 5 that they traverse. The damage to the roads accrues markedly in high altitude areas, snow belt areas, and at the end of the routes where the traffic becomes more and more concentrated.
    b. The state roads, by the folly of the legislature, are allowed to carry more tonnage than the federal roads and thus accrue more damage to the roadbeds in a shorter amount of time. A traffic specific route via the interstate would lessen state route repairs and save the taxpayers money.

2. This specific traffic route designation is condition for the purpose of public safety. The west to east routes are poorly designed for the concentration of tractor trailer traffic that are currently using them. This is a safety factor for everyone involved. These routes are the main roads to Burlington and its adjacent towns where many of us work and shop. Many parts of these routes are narrow and without shoulders. There aren't any passing lanes and there are few areas for drivers to safely pass. This presents both truckers and other users many problems, stress, and anxiety regarding the travel of the roadway. These conditions are exacerbated in inclement weather especially snow. Pedestrians and bicyclists are endangered on these roads. On many a journey on these roads one encounters some poor soul leading a long line of traffic with no place to pull off, or fearful of the big rig behind them. Certainly MBI or Casella trailers are not the sole users of these routes, but they do significantly add to the numbers and the issues of safe use.
3. If a limited expansion is permitted without traffic conditions it should be conditional on improvements by the state to the roads most traveled by Casella haulers. This would include the replacement of the twisted bridges through Johnson, the widening of the roadway, the fortification of the roadway, passing lanes, and shoulders and places to pull off, and an adjacent and separate bike & pedestrian lane parallel to the routes. These improvements would be financed by impact fees placed on the tonnage hauled to the Casella landfill in Coventry. These kinds of conditions are not without precedence. Casella pays an amazing amount of road taxes and fees and the costs accrued by the state to cover these improvements should be targeted to the area of major traffic use by Casella instead of road maintenance everywhere.
4. Air Quality standards need to be reviewed and updated to deal with the current stench emitted from the landfill. There are claims on bad days with the right winds the stench is noticeable as far away as the Lake Region Road in Barton and Leaf Road in Irasburg. Regardless of the size of the area where the odor is an issue, no one should have to live with stench. Air quality monitoring stations need to be placed on the periphery of the landfill and monitored by the state of Vermont. When air quality standards are not met penalties need to accrue,

5. Currently trucks for the landfill are arriving earlier than allowed under the current agreement. There are claims that trucks are arriving as early as 4:30 and parking alongside Route 5 waiting for the landfill to open before proceeding to it. This condition of arrival time needs to extended and enforced.
6. Route 5 is a natural heritage corridor that needs special protection. It is a beautiful place used by a wide variety of people for the enjoyment of the views, fishing, and the environment it provides. Route 5 from the village of Coventry to the Airport Road lies besides the Black River on its south side and is bordered by tall hills on the north. A conditional permit for the landfill needs to protect the corridor, fortify the roadway, and improve its design in regard to traffic flow. It also needs to provide a separate adjacent pathway from the roadway on the river side for fisher people, bikers, and walkers who now risk their lives to use the corridor.

In closing, I want to say,

The proposed expansion by Casella needs to be denied or be very limited. This is a mega facility for the Northeast Kingdom and it doesn't need to become any larger until the basic problems, of odor, traffic, and roadway integrity are improved. The landfill is already having issues with resolving problems it is creating with odors, traffic, and roadway infrastructure. It doesn't need to become bigger until there are mechanisms to correct its current problems.

I'm a fan of Casella's entrepreneurial spirit. Their business model is shrewd and their implementation is smooth. While the problems the Casella landfill facility causes are many, and the infrastructure damage caused by tractor-trailer traffic is extremely damaging and obnoxious, their drivers and employees are respectful and well meaning. Casella isn't an evil empire, they are simply and profitably taking advantage of a situation the legislature never intended to create.

Our legislature is probably as environmentally conscious as any in the country. They need to continue to focus on encouraging and even mandating residents of Vermont to be responsible for recycling and landfilling their trash in a local setting.

Finally, I live in the town of Irasburg, which is adjacent to Coventry and the Casella Landfill facility. Our town bears around 90% of all the truck traffic going to the Casella Landfill. It's a concentrated amount of traffic that during the daytime is constant and noisy. It affects each one of us that lives near the road or as we travel on beat up poorly maintained roads to the west. The roadway maintenance, upkeep, and improvements are noticeable by their near lack of. All the towns west of the landfill along their corridors of transport pay a tremendous price and receive no benefit from this arrangement. All of you on the Department of Environmental Conservation should do something about it. I ask you as a minimum to respond to each of the points raised in each of the foregoing paragraphs.

My name is Henry Coe, an ordinary resident of the Northeast Kingdom for over 50 years, father of three sons and seven grandchildren who live nearby. I come here today as a citizen and because I care greatly for our area, for its future, and for our neighbors which include thousands of friends immediately north of our Canadian border.

I used to dump my trash in old Charlie Nadeau's dump in the sixties. Instinctively, as a young man, I felt I was polluting the water running in the Black River to Lake Memphremagog. In those days, Charlie had three, loosely related businesses, - a stock car racing track, a junk yard, and a dump. Over the years, Charlie was forced to close the wrong businesses, the racetrack and the junkyard, which were relatively benign. The worst of the lot, the dump was allowed to stay, kind of grand-fathered in. Originally located at the edge of the extensive wetland east of the Black River, close by where it enters South Bay, Lake Mempremagog, the dump was sold and then resold to Casella Waste Management. Over the period Casella has owned and operated this landfill facility, it has migrated, cell by cell up the slope from the original old dump.

Has the general location changed? No. Has the volume of waste changed? Yes. Have the sources and kind changed? Yes.

Our area now receives waste, including waste from contaminated sources, from all over the State of Vermont as well as from other states. Our Northeast Kingdom has become the weak link in the landfill waste chain. Our state government has granted a franchise to a profit-making corporation to receive this waste generated elsewhere, almost guaranteed to pollute our waters and pound our roads. Dozens of truckloads of solid waste north, each week, truckloads of poisonous leachate south. It was the wrong micro location then; it is the wrong micro and statewide location now. Are we so foolish as to believe the language in this application that these synthetic landfill liners are "permanent"? Will not they leak into our ground water and into our international lake? Last I knew, nothing is forever.

In thinking about this request for a 51 acre extension and an additional 10 permitted years to operate what has now become the State's only state-wide solid waste landfill, I find it ironic and perplexing that Vermont's health and safety rules and regulations are more stringent for the individual citizen and household than for a large corporation. Three examples come to mind:

1. Vermont will soon be operating under a Universal Recycling law which requires individual households to compost. This is good. The Application makes little mention of this law. The owner of the Coventry landfill, who lobbied against this law, requests to operate as before according to the Application. Business as usual. No procedures are proposed to test contents of in-coming trucks, load by load for organics, recyclables or contaminated/hazardous waste. Vermont takes the word of the company as to what each truck brings in, by periodic review of the operator's books. No state employee is on scene full time, no state lab on scene, Fox guarding the chicken coop. There is also a veiled threat, saying that these trucks may be periodically inspected by another party. I have heard of only one instance of that - once when the FBI was searching for a couple of dead bodies. We are all familiar with simple soil sample augers which I am sure can be modified and automated for required multiple samples to be taken from each truck load prior to unloading. The lab sample should be identified as to source, lab tested on site, and approved before any solid waste material can be unloaded. This should be mandatory and made a condition for continued operation of this facility.

2. When farmers send milk from farm to processing plant, the trucker, before turning the hose valve from bulk tank to truck, first takes a sample from the bulk tank, places it in a small lab jar identified as to farm, puts it into a refrigerated container inside his cab. He then empties the farmer's bulk tank contents into his tanker truck. Repeats process for each farm's milk he picks up. Before he unloads at the Cabot or Hood receiving plants, each lab sample is tested. And samples are taken of the full load. If the lab results pass, the trunk contents are unloaded and used. If a sample fails the lab test, further tests are done on the full load, and if found diluted sufficiently to pass the standard, the contents are used. Authority exists to destroy the full contents of the tanker truck for loads not meeting health standards. There is a lab record for each farm. Offending farms are liable for damages.

3. Vermont residents, when building a new house, must pass a soils perc test, and increasingly are required to build an elaborate mound system. No permit is approved and given, until a back-up area is found and reserved, in case of a leach field failure. This is an expensive process for a young family. Does our Environmental Conservation Agency hold landfill operators to the same standard? I stand to be corrected, but not to my knowledge. In the event of failure of the Coventry landfill, where is the required back-up in the rest of the State? To my knowledge, there is none. Coventry is the only remaining game in Vermont. What happened to the rest ? What is the definition of failure of a landfill? Is there a definition? .Presumably all other landfills have failed. By default Coventry has become Vermnt's only remaining back-up. This represents a failure of state solid waste planning.

As far as I can see, by reading the application, if one "cell" fails, waste deposits shall be stopped there and put into a new "cell". No word is given on how that failure (presumably groundwater and/or surface water contamination due to cuts and holes in the bottom liner) is to be mitigated. Is each cell, those that fail, and those that potentially may fail, always accessible for mitigation and repair? Even those now surrounded by other cells? Please explain.

The reality is that the State of Vermont has had no long-range planning for regional and statewide solid waste disposal. Its policy has been disjointed and incremental. If one accepts that a single mega-operation is found best, it logically would be located in a central location of higher volume, like Montpelier, or even a Woodstock, Hartford, or Burlington, .saving millions in trucking and road maintenance costs.

Instead the State has been reactive. To a historically bad location, grandfathered-in, within the Northeast Kingdom where there is little money and little political clout to defend against it. The historic dump in Coventry was a bad location then. It is an equally bad location now, perched as it is above an international potable water source for thousands of our Quebec neighbors, in Magog and Sherbrooke, whose population is three times the size of Burlington's. Common sense says you don't place and outhouse above a potable spring. Most Vermonters know this.

Any application for a new facility elsewhere in the state would not be permitted to locate within, and at the edge of a designated wetland and at the headwater of a major potable water source. We now see for the first time, in the fourth paragraph of the first page of the Application to expand, a variance was granted by the State in November, 2016, allowing the applicant to encroach into the 300 foot buffer regulation of a designated wetland. Was the public warned? Were public hearings held on the variance request? Please document. Again, stricter regulations are placed upon the individual owner of a woodlot under the Current Use regulations than for a corporate entity. To my knowledge, areas designated as "Ecologically Sensitive Treatment Areas" (ESTA's), are not subject to variance and require that no man-made disturbance occur in such areas. Landowners respect this This wetland in Coventry, adjacent to the facility should be treated with no less protection and care.

Should not the goal of the State of Vermont, and for all of us, be the ability to recycle more than we dump? Complementary to that is the need of land fills to remediate – (remove, sort, recycle, and sell materials). If we meet these goals, - one ton in, one ton out, - as should be required, then there is no need to expand this facility, and to further endanger our Canadian friends and our own environment.

Four years of permitted capacity, at current usage rates, still exists in the Coventry facility. What is the hurry? The State, in its obligation to serve the public interest needs to be proactive. Develop a comprehensive statewide comprehensive solid waste disposal plan, including implementation. The State needs question the assumption that landfill liners are forever. It needs to coordinate plans with the objectives of Vermont's Universal Recycling law. It needs to assess population trends. It needs to be conservative and sensitive when permitting development adjacent to wetland areas and at the headwaters of a potable water supply effecting a large population. These considerations, undertaken with proper proactive planning, would demonstrate that the present Coventry landfill site is definitely the wrong location to receive additional solid waste until 2035. Take advantage of this four year opportunity now.

I urge you to disapprove of this application both to expand acreage and to extend the permit period.

I want to make my complaint as formal as can be about the Foul air that stems from the operations at NEWSVT and that I am apposed. My feeling bout the expansion is that the odors will only magnify.

I did receive a call from Barb Schwendtner on July 13th as a follow up to my most recent complaint of heavy trash spell that hung low on a morning of heavy fog under a low pressure here at my work location earlier that week. It was not as strong as the heavy gas smell that I find hard to tolerate having to breath . Still the same it is hard to differentiate when asked if is a sludge smell or garbage smell. Maybe it is possible there is a mix of the two together. She did explain the efforts that some of the waste sludge from some areas of the state are now not being accepted as a possible root to the heavy odor issues. Also explained was that they are using scent additive to bring down the odors with the loads being brought in and finally that there had been some issue on Gas system.

I am including a site map to show location of my property . The map includes that location of the NEWSVT site as well and the close proximity. See attached:

I find it hard that there has not been a greater number of odor complaints. Maybe it is possible not directly to your department and or reaching your desk. I do know that here at my work place we have had complaints called in directly to the NEWSVT back a few years ago, they have come over a number of times in response to the call but what if anything came of it to the point that a level of frustration and tolerance to point it was felt that it was no sense continuing the calls. No Fix. I can say that the last few weeks have improved , but we have been in a high hot weather pressure system that generally works in lifting the odors higher sooner. I feel that there is no assurance that I can count on that as a remedy to the ongoing issue. I do appreciate the fact that Barb has been able to assure me that your department is addressing some of the issues about he odors. I am sure NEWSVT are also making diligent efforts as well, as they should . Although in the end and for the surrounding residence it still leaves strong doubt that there will be continued safeguards and or stipulations in efforts to control an increase of future Odors as well as current conditions.

Please consider my comments in your Departments Permit Considerations. Thank You

New England Waste Services of Vermont, Inc. (NEWSVT) is in receipt of the Waste Management and Prevention Division's (WMPD's) electronic mail transmitting a copy of the draft operating certification dated; June 5, 2018.

NEWSVT has reviewed the draft operating certification and provides the following comments with strikethrough and **bold text** for any requested change, followed by a justification in *italic font* where necessary;

#1 Condition #6 – Please consider revising the condition as follows:

The permittee shall install marker indicating the edge location of the subsurface liner system. The limit of waste markers shall remain **until the waste is placed to the horizontal limit** and be replaced as needed**, or as requested by the Secretary.** ~~until final closure of the Facility.~~

Maintaining waste limit markers until final closure could be a decade or longer in some areas and provides little value where waste is not actively being placed. This is an unnecessary cost, NEWSVT would be more than willing to identify (stake-out) this limit at the Secretary's request to demonstrate proper horizontal control.

#2 Condition #15 – Please consider amending the due date for the annual inspection to August.

NEWSVT performs an annual aerial survey in June and this would allow sufficient time to prepare the settlement evaluation required by condition #15.

#3 Condition #22(e) – Please consider revising the definition of "Approved Material Recovery Facility Residuals" to as follows;
"Approved Material Recovery Facility Residuals" to: means waste accepted in accordance with 10 V.S.A. § 6605(b)(3)(B). Processed residuals from a non-implemented material recover**y** facility need not remove 100 percent of mandated recyclables, if the ~~disposal~~ **recycling** facility submits a plan demonstrating that mandated recyclables have been removed to the maximum extent practicable and **the Plan** has been approved in writing by the Secretary.

#4 Condition #22(f) – Please consider revising the definition of "Approved Special Waste" to as follows;
Approved Special Waste" means ~~non-implemented contaminated waste, with the presence of hazardous materials~~ **nonhazardous solid waste that by its contaminated nature or physical characteristic requires special review**. To be approved for disposal, the facility must demonstrate that this waste is not considered regulated hazardous waste pursuant to Subchapter 2 of the Vermont Hazardous Waste Management Regulations and obtain written approval from the Secretary for disposal.

#5 Condition #23 – Please consider revising the condition as follows:
The Permittee shall provide the following information when making a request **to dispose** ~~for approval of the disposal~~ of Processed Construction and Demolition Debris or Material Recovery Facility Residuals: The location of the processing facility; a copy of any solid waste facility certification that the processing facility holds; a narrative description of the processing that takes

place at the facility, including specific information on how Vermont landfill banned materials are removed; a certification that the process residual is solely construction and demolition debris or material recovery facility residuals ~~and the process residual contains no municipal solid waste;~~ and a certification that mandated recyclables, hazardous wastes, and yard wastes have been removed to the greatest extent practicable from the processing residual.

#6 Condition #24 – Please consider revising the condition as follows:

The Permittee shall provide the following information when making a request for approval of Special Wastes: The origination location of the materials, the owner of the materials, a brief history and description of the origination site or materials, duration of the project, a copy of sufficient analytical data demonstrating that the material is not a regulated hazardous waste and a narrative describing that the ~~material is uniform and consistent such that the~~ analytical data provided is representative of the materials to be disposed, safety data sheets, if applicable, and an estimated amount of material.

Consistent to previous discussions with the Agency, please modify this condition to remove the terms "uniform and consistent". These terms are not defined and open to interpretation. The generator is ultimately responsible to ensure the entire waste stream proposed for disposal is non-hazardous and the analytical data is representative.

#7 Condition #25 – Please consider revising the condition as follows:
The Permittee shall not accept for disposal at the Facility Non-Implemented Waste **without approval from the Secretary**. The Permittee may accept Approved Solid Waste and Approved Processed Construction and Demolition Waste, Approved Material Recover**y** Facility Residuals and Approved Special Waste only in accordance with the standards set forth in the Secretary's written approval for each particular waste type.

#8 Condition #55 - Please consider revising the condition as follows:
In accordance with §10 V.S.A 6605(j)(2), the Permittee shall offer parallel collection for leaf and yard waste at the Facility **between April 1st and December 15th.**

Consistent with amended legislation in 2018.

#9 Condition #57 - Please consider revising the condition as follows:
~~All~~ **Source separated** food residuals and organics **that are removed from the facility** shall be transported to a certified or registered treatment Facility on a schedule adjusted to control odors and vectors from the waste.

#10 Condition #65 - Please consider revising the condition as follows:
During the first week of each month, the Permittee shall collect field measurements for temperature, pH, ~~and~~ specific conductance and **an** estimated **instantaneous** discharge rate (gallons per day) from the five underdrain discharge points (Phases I, II, III, IV and VI).

#11 Condition #69 – Please consider eliminating the requirement to sample each individual primary leachate system. NEWSVT would propose to sample the consolidated leachate which is a cross section of primary and secondary flows and more representative of what the wastewater plants receive. Sampling each primary every May and October has little value real time value (unless the action leakage rate were exceeded) and is costly.

#12 Condition # 73 - Please consider revising the condition as follows:
On or before the 15th day of each month, the Permittee shall submit the following data to the Program:

a. records of daily leachate flows required by Condition 62;

b. records of the quantity of leachate pumped, quantity of leachate shipped and the name of the facility receiving the leachate for the previous month as required by Condition 63; and

c. field measurements for temperature, pH, specific conductance and ~~discharge volume~~ **flow rate** from the underdrain system as required by Condition 65**.**

#13 Condition # 78 - Please consider eliminating this condition as it is already included in Condition #77.

#14 Condition # 79 - Please consider extending the submittal of sampling results to **"60 days after the receipt of all analytical laboratory results"**, rather than 45 days.

With the amount of data requiring analysis and formulation, 45 days does not give NEWSVT a reasonable amount of time to assess the data, perform a full round assessment, quality assurance review, graph and review against historical results and get the full report assembled and submitted.

#15 Condition # 94 - Please consider eliminating this condition as it is included in Condition #77 and consider adding notes to Condition #15, that items (g) & (h) are only required during active operations.

Should you have questions or comments please do not hesitate to contact me at (802) 651-5454.

Sincerely,

NEW ENGLAND WASTE SERVICES OF VERMONT, INC.

July 20, 2018

Via Electronic and Regular Mail

Jeff Bourdeau
Waste Management & Prevention Division
Department of Environmental Conservation
Davis Building – 1st Floor
One National Life Drive
Montpelier, VT 05620-3704
jeff.bourdeau@vermont.gov

Re: New England Waste Services of Vermont, Inc. (Casella) application to recertify and expand the landfill at 21 Landfill Lane, Coventry, Vermont, (Coventry Landfill), Solid Waste I.D. No. OL510, DEC Project I.D. No. SJ91-0001.

Dear Mr. Bourdeau:

Conservation Law Foundation (CLF), Toxics Action Center, Vermont Conservation Voters (VCV), Vermont Natural Resources Council (VNRC), Vermont Public Interest Research Group (VPIRG), and Clean Water Action strongly oppose the recertification and expansion of the Coventry Landfill (Landfill) as proposed by Casella in its Certification Application: Phase VI Landfill Expansion, originally submitted March 31, 2017, final revisions dated May 31, 2018 (the Permit Application). Casella has not demonstrated that the recertification and proposed addition of 51.2 acres and approximately 11 million tons of capacity to its current facility is in compliance with the Vermont Solid Waste Management Rules (Rules) and that emissions or discharges from the facility will not unduly harm the public health and have the least possible reasonable impact on the environment.[1] In addition, this expansion will undermine the need to responsibly manage waste through source reduction, recycling, and composting. For the reasons set forth below, the Permit Application should be denied. At a minimum, the Agency should delay approving any expansion until Casella demonstrates that it is in compliance with the Rules and Groundwater Protection Rule by conducting a thorough investigation of releases of pollution from the Landfill and remediating any groundwater contamination, and the Agency determines the actual waste disposal capacity needs of Vermont after full implementation of the Universal Recycling Law.

CLF is a nonprofit, member-supported, environmental organization working to conserve natural resources, protect public health, and promote thriving communities for all in the New England region, including Vermont. CLF has a long history of advocating for clean air, clean water, and healthy communities, including addressing the environmental and community impacts of solid waste disposal and advocating for waste management strategies focused on waste reduction and recycling as opposed to landfilling and incineration.

[1] Vt. Admin. Code 16-3-200:5 § 6-503(a).

Founded in 1987, Toxics Action Center works side-by-side with communities in New Hampshire and across New England to clean up and prevent pollution at the local level.

Through research, education, collaboration and advocacy, VNRC protects and enhances Vermont's natural environments, vibrant communities, productive working landscapes, rural character and unique sense of place, and prepares the state for future challenges and opportunities.

Founded in 1982, VCV works to elect environmentally-friendly candidates to public office, and then holds elected officials accountable for the decisions they make affecting our air, water, communities, land, and wildlife.

VPIRG is the largest nonprofit consumer and environmental advocacy organization in Vermont, with over 50,000 members and supporters. For over 45 years, VPIRG has brought the voice of average Vermont citizens to public policy debates concerning the environment, health care, consumer protection and democracy.

Clean Water Action is a member organization of diverse people and groups joined together to protect our environment, health, economic well-being and community quality of life. Our staff works to secure clean, safe and affordable water; prevention of health threatening pollution; creation of environmentally safe jobs and businesses; and empowerment of people to make democracy work.

I. Background

A. Proposed Expansion

Coventry Landfill is owned and operated by New England Waste Services of Vermont, Inc., a subsidiary of Casella Waste, Inc. The Landfill is on a 627-acre parcel of land,[2] located approximately 1.2 miles south of the junction of Airport Road and U.S. Route 5, with access from Airport Road.[3] The Landfill is generally bounded by Airport Road to the east, the Black River to the west, forested land to the north, and the Northeast Kingdom International Airport to the south.[4] The existing airport runways is approximately 2300 feet from the proposed edge of Phase VI.[5]

In the northern part of the property, the Landfill has existing closed, unlined cells totaling 11 acres, also known as the "Nadeau" landfill,[6] and identified as Unlined Areas A & B in the Permit Application, that were closed in the early 1990s.[7] In 1993 Casella began operating the lined phases of

[2] NEWSVT, Inc., Phase VI Application – Fact Sheet, 1 (May 31, 2018), https://anrweb.vt.gov/PubDocs/DEC/SolidWaste/OL510/OL510.2018.05.31%20Fact%20Sheet.pdf.
[3] NEWSVT Certification Application Design Report, 1-2 (May 2018).
[4] *Id*.
[5] NEWSVT Certification Application Phase VI Landfill Expansion, 17 (May 31, 2018), https://anrweb.vt.gov/PubDocs/DEC/SolidWaste/OL510/OL510.2018.05.31%20APPLICATION_%20NEWSVT%20Phase%20VI%20.pdf. See Attachment A (Phase VI Location Map) and B (Air Permitting Locus Plan).
[6] AP News, Landfill Expansion in Vermont Moves Forward, https://www.apnews.com/ad244ca6777b4f12a06c859f4f7bc7d0 (last visited July 20, 2018).
[7] *Id*.

the Landfill. Landfill Phases I, II, and III total about 34 acres, are in the central and southern portions of the property,[8] and were filled between 1993 and 2006. Phase IV is currently open, is also in the central and southern portion of the property, and encompasses about 45 acres. The lined, operating portion of the Landfill is almost 79 acres.

Phase V, described in the Permit Application as being "in the permitting process" would total 13.8 acres and partially overlay Unlined Areas A & B. Casella has proposed remediating the unlined 11 acres of the Landfill by building a new cell to the northeast of the existing landfill, moving the waste from the Unlined Areas A & B there, and then developing the rest of the parcel (including what was Unlined Areas A & B)[9] for a total of 13.8 acres of cells. In 2005 Casella applied for a permit to build Phase V after Casella was required to investigate its unlined landfill cells, [10] but that Phase seems to have been shelved because according to Casella, Phase VI is "easier and less costly."[11] According to the Permit Application Phase V is scheduled to operate between 2032-2035.[12]

Phase VI, the expansion that is the subject of the application at hand, is south of Phases I, II, III, and IV, is proposed to be two cells totaling 51.2 acres,[13] and would contain 13,068,000 cubic yards, or 11 million tons, of capacity.[14] The existing land uses and vegetation on the proposed Phase VI are primarily actively cropped agricultural fields, as well as a Class 2 wetland along Airport Road.[15]

Casella accepted 506,000 tons of waste last year, though they are permitted to accept 600,000 tons a year. About 70%, or 350,000 tons, of the 506,000 tons they buried in 2016, was from the State of

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[8] Design Report, *supra* note 3, 1-2.

[9] Agency of Natural Resources, Dep't of Envtl. Conservation, Technical Analysis of an Air Contaminant Source for a Title V Permit to Construct and Operate, Coventry Municipal Solid Waste Facility (DRAFT) (May 4, 2018), http://dec.vermont.gov/sites/dec/files/aqc/permitting/documents/title-v-permits/draft_combined_taop17018%20and%20taop18019.pdf.

[10] NEWSVT, Title V Air Pollution Control Permit Minor Modification Application, 6-7 (June 2017).

[11] AP News, Landfill Expansion Moves Forward in Vermont, https://www.apnews.com/ad244ca6777b4f12a06c859f4f7bc7d0 (last visited July 20, 2018).

[12] There is some confusion about the status of Phase V. While Waste Today magazine reported in March, 2018, "The requirement to investigate its unlined landfills caused Casella to launch phase five. In 2005, the company applied for phase five, which required building a lined landfill at the northeast end of the site. Crews built one cell, moved all waste from the unlined landfill to the new cell and cleaned up any contaminated soil in the unlined portion," according to other documents, it was not approved or constructed. VTANR stated in a draft Technical Analysis of an Air Contaminant Sources for a Title V Permit to Construct that "The proposed Phase V landfill expansion would be located in the 11-acre footprint of the former Areas A&B and would have a capacity of approximately 1,854,738 Mg of refuse. Approval to relocate the refuse in Areas A B and the Phase V expansion is contingent on NEWSVT obtaining all necessary permits. . . " Waste Today, Permission Granted, http://magazine.wastetodaymagazine.com/article/march-2018/permission-granted.aspx (last visited July 20, 2018); Agency of Natural Resources, Dep't of Envtl. Conservation, Technical Analysis of an Air Contaminant Source for a Title V Permit to Construct and Operate, Coventry Municipal Solid Waste Facility (DRAFT) (May 4, 2018), http://dec.vermont.gov/sites/dec/files/aqc/permitting/documents/title-v-permits/draft_combined_taop17018%20and%20taop18019.pdf.

[13] The proposed Phase VI includes 2.2 acres of previously permitted landfill capacity. Design Report, *supra* note 3.

[14] *Id*.

[15] NEWSVT, Hydrogeologic Site Characterization Lined Landfill, Phase VI, 2 (May 31, 2018).

Vermont. Currently, the Coventry Landfill has about four years, or two million tons, of capacity remaining. Coventry Landfill accepts municipal solid waste ("MSW") exclusively from Vermont, but accepts construction and demolition debris ("C&D"), non-friable asbestos, wastewater treatment plant sludge, and "special" solid wastes which include ash and contaminated soil from Vermont and out of state.[16] The Landfill's out of state tonnage for 2016 was about 70,000 tons.[17] The Landfill also accepts many of these same materials as Landfill Alternative Daily Cover, but then it is not counted as part of the waste buried at the Landfill. For instance, in 2016, the Landfill accepted more than 10,000 tons of sewer sludge and almost 18,000 tons of Contaminated Soils as Daily Cover.[18]

The leachate, or garbage coffee, created when precipitation runs into the landfill cells, is pumped to on-site storage tanks prior to being loaded into tanker trucks and hauled off-site for disposal at wastewater treatment plants.[19] According to Casella's application, Casella estimated the number of gallons of leachate that would be generated in the proposed expansion by averaging the leachate from the existing disposal cells for two years, and then dividing it by the number of acres of the Landfill. There was no discussion of whether 2015 and 2016 (the years used) reflect average precipitation conditions, account for increased precipitation due to climate change,[20] or how many acres of the Landfill were open during those two years. In fact, there was a more than four-million-gallon difference in leachate generation between 2015 and 2016. Regardless, if we accept this deeply flawed method, the Landfill will generate almost seven million gallons more a year if the expansion is allowed.[21]

The Landfill has two flares. There is also a Landfill Gas to Energy Operation (LFGTE) at the Landfill and it, is permitted under a separate Title V Permit.[22]

The Agency granted a variance from the 300-foot wetland setback isolation distance required by Section 6-503(b)(4) of the Rules. This means that the waste boundary is only about 160 feet from the wetland boundary.[23]

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[16] NEWVT, Facility Management Plan (May 31, 2018).
[17] Dep't of Envtl. Conservation, Waste Mgtm. & Prevention Div., 2016 Diversion and Disposal Report 5 (Oct. 2017), available at http://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/2016-Diversion-and-Disposal-Report.pdf.
[18] *Id.* at 7.
[19] NEWSVT, Title V Air Pollution Control Permit Minor Modification Application 6-7 (June 2017).
[20] State of Vermont, Climate Change in Vermont, http://climatechange.vermont.gov/our-changing-climate/dashboard/more-annual-precipitation (last visited July 19, 2018) (noting that "[a]verage annual precipitation, whether as rain or snow, has increased by 1.5 inches per decade since 1960.").
[21] Certification Application, *supra* note 5, C-2.5B Leachate Storage Evaluation, Attachment C Leachate Generation Summary, 1234.
[22] NEWSVT, Title V Air Pollution Control Permit Minor Modification Application 4-5 (June 2017).
[23] Permission to fill this area of wetlands was granted by the U.S. Army Corps of Engineers and Vermont Wetlands Program on April 11, 2016 and June 30, 2016, respectively. The Variance was approved by the WMPD on November 1, 2016. Design Report, *supra* note 3, 2.

B. Leachate Characteristics

Landfill leachate contains many dangerous chemicals, including heavy metals, polybrominated diphenyl ethers (PBDEs), perfluorinated alkyl substances (PFASs), and other chemicals of emerging concern.[24] Landfills contain a heterogeneous mixture of liquid and solid waste from residential, commercial, institutional, and municipal sources. Landfill leachate, the liquid pollutant resulting from water moving through the waste pile, reflects this heterogeneity in its chemical composition. The exact characteristics of leachate will depend on the type of waste stored and the hydrologic and chemical conditions of the landfill. A landfill site will produce leachate throughout its working life and for several hundred years, if not thousands of years, after it is decommissioned.[25]

In 2013, the Department of Environmental Conservation found that waste streams containing toxic materials were disposed of in Vermont, including electronics, special wastes, plastics and household hazardous waste. [26] It is therefore certain that the leachate collected at the Coventry Landfill will also contain the hazardous contaminants found in these wastes.

In addition, PBDEs and PFAS are both classes of persistent organic pollutants with potential major health consequences that are found in virtually all landfills.[27] PBDEs are flame retardants found in electronics likes cell phones and computers, mattresses, couches, vehicle interiors, and clothing.[28]

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[24] *See, e.g.,* W. J. Andrews, J.R. Masoner, & I. M. Cozzarelli. *Emerging contaminants at a closed and an operating landfill in Oklahoma*, 32 Ground Water Monitoring Report 120-130 (2012); A. Sengupta, J. M. Lyons, D. J. Smith, J. E. Drewes, S. A. Snyder, A. Heil, K. A. Maruya, *The occurrence and fate of chemicals of emerging concern in coastal urban rivers receiving discharge of treated municipal wastewater effluent*, 2 Environ Toxicology and Chemistry 350–358 (2014); Debra R. Reinhart, *Review of Recent Studies on the Sources of Hazardous Compounds Emitted from Solid Waste Landfills: A U.S. Experience*, 11 Waste Management & Research 257-268 (1993); Peter Kjeldsen, Morton A. Barlaz, Alix P. Rooker, Anders Baun, Anna Ledin, & Thomas H. Christensen, *Present and Long-Term Composition of MSW Landfill Leachate: A Review, Critical Reviews in Environmental Science and Technology*, 32 Environmental Science and Technology 297-336 (2002); A. H. Huset, M. A. Barlaz, D. F. Barofsky, & J. A. Field. *Quantitative determination of fluorochemicals in municipal landfill leachates*, 82 Chemosphere 1380–1386 (2011); F. Oliaei, *Flame Retardants: Polybrominated Diphenyl Ethers (PBDEs) Background Paper*, Minnesota Pollution Control Agency, 31 (2005); International Joint Commission, *Background on Polybrominated Diphenyl Ethers (PBEs) Final Report* (Aug. 10, 2015), http://www.ijc.org/files/tinymce/uploaded/WQB/Appendix-B%20_Background_PBDEs.pdf.

[25] *See, e.g.,* G. Fred Lee and Anne Jones-Lee, Flawed Technology of Subtitle D Landfilling of Municipal Solid Waste 7 (2015), available at http://www.gfredlee.com/Landfills/SubtitleDFlawedTechnPap.pdf.

[26] DEC, State of Vermont Waste Composition Study, Final Report (May 2013), available at http://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/finalreportvermontwastecomposition13may2013.pdf.

[27] A. H. Huset, M. A. Barlaz, D. F. Barofsky, & J. A. Field. *Quantitative determination of fluorochemicals in municipal landfill leachates*, 82 Chemosphere 1380–1386 (2011); F. Oliaei, *Flame Retardants: Polybrominated Diphenyl Ethers (PBDEs) Background Paper*, Minnesota Pollution Control Agency, 31 (2005); International Joint Commission, *Background on Polybrominated Diphenyl Ethers (PBEs) Final Report* (Aug. 10, 2015), http://www.ijc.org/files/tinymce/uploaded/WQB/Appendix-B%20_Background_PBDEs.pdf.

[28] F. Oliaei, *Flame Retardants: Polybrominated Diphenyl Ethers (PBDEs) Background Paper*, Minnesota Pollution Control Agency, 31 (2005); International Joint Commission, *Background on Polybrominated Diphenyl Ethers (PBEs) Final Report* (Aug. 10, 2015), http://www.ijc.org/files/tinymce/uploaded/WQB/Appendix-B%20_Background_PBDEs.pdf.

Some of the health consequences of exposure to PBDEs are neurological, reproductive, and cancer-related.[29]

PFAS have been going to landfills for over sixty years.[30] They are used in many consumer products including electronics, microwave popcorn bags, carpet, upholstery, nonstick cookware (Teflon), dental floss, and textiles.[31]

Finally, research by the United States Geological Service (USGS) has shown a variety of other chemicals of emerging concern (CECs) in landfill leachate, including, among others personal care products, nanoparticles, pharmaceuticals, and estrogen-like compounds.[32]

II. Groundwater

The applicant has failed to demonstrate that the proposed expansion of the Landfill will not result in an exceedance of groundwater enforcement standards (GES) at compliance points. In order to re-certify landfill operations and certify the proposed expansion of the Landfill, the Agency must make a determination that the activity is in compliance with the Groundwater Protection Rule & Strategy (Groundwater Protection Rule).[33] The Groundwater Protection Rule prohibits activities that will result in an exceedance of a groundwater enforcement standard at compliance points.[34] The applicant has failed to demonstrate that the proposed expansion of the Landfill will not violate the Groundwater Protection Rule because (1) the Landfill is already leaking pollution into groundwater; (2) the applicant has not evaluated the potential impact of perfluoroalkyl and polyfluoroalkyl substances (PFAS) on groundwater; (3) the applicant has failed to demonstrate that the new disposal cells will not interfere with an investigation and remediation of any existing, leaking cells; and (4) the applicant has failed to demonstrate that the new disposal cells will not leak. Thus, the Agency should deny the proposed expansion of the Landfill.

[29] Thomas A. McDonald, *A Perspective on the Potential Health Risks of PBDEs*, 46 Chemosphere 745-755 (Feb. 2002).
[30] A. H. Huset, M. A. Barlaz, D. F. Barofsky, & J. A. Field. *Quantitative determination of fluorochemicals in municipal landfill leachates*, 82 Chemosphere 1380–1386 (2011).
[31] National Center for Environmental Health, *An Overview of Perfluoroalkyl and Polyfluoroalkyl Substances and Interim Guidance for Clinicians Responding to Patient Exposure Concerns*, Center for Disease Control (June 7, 2017), https://www.atsdr.cdc.gov/pfc/docs/pfas_clinician_fact_sheet_508.pdf; Johnsie R. Lang, B. McKay Allred, Jennifer A. Field, James W. Levis, and Morton A. Barlaz, *National Estimate of Per- and Polyfluoroalkyl Substance (PFAS) Release to U.S. Municipal Landfill Leachate*, 51 Environmental Science & Technology 2197-2205 (2017).
[32] J. R. Masoner, D. W Kolpin, E. T. Furlong, I. M. Cozzarelli, J. L. Gray, & E. A. Schwab, 2014, *Contaminants of emerging concern in fresh leachate from landfills in the conterminous United States*, 16 Environmental Science--Processes and Impacts, 2335-2354 (2014).
[33] Vt. Admin. Code 16-3-200:5 § 6-303(d); Vt. Admin. Code 16-3-502:12-801.
[34] Vt. Admin. Code 16-3-502:12-801.

A. The Landfill is already leaking pollution into groundwater.

Unlined Landfill Areas A & B

Casella has acknowledged that the unlined disposal cells, identified as Unlined Landfill Areas A & B, are likely leaking arsenic, iron, lead, and manganese into groundwater at levels that statistically exceed GES.[35] In January of 2018, the Agency directed Casella to develop an approach to monitor compliance at the property boundary near Unlined Landfill Areas A & B given significant increases in arsenic concentrations:

> Arsenic within MW-D2 has increased significantly within the last several sampling rounds, and it has also been increasing steadily at MW-BRW-3D since its installation in 2013. Given that there is only approximately 500 feet between MW-BRW-3D and the property boundary, we need to discuss development of an approach that will provide monitoring along this compliance point. Although the presumed groundwater flow direction is to the northwest and not directly towards this property boundary, side-gradient flow is a possibility that needs attention.[36]

Although Casella has agreed to evaluate shallow groundwater flow direction in the area by adding additional shallow groundwater wells and monitoring water levels between March and October this year, Casella has not submitted a formal scope for investigating whether pollution from Unlined Landfill Areas A & B is migrating towards or has reached this property boundary.[37] It is not clear whether Casella intends to conduct water quality sampling in the new wells at this time.[38] While the Agency has noted that the installation of the new wells is a "good start", the Agency has raised questions as to whether Casella's current proposal to install new shallow wells and monitor water levels is "representative of all groundwater conditions" in the area given that the two wells with rising arsenic concentrations are "deeper installations."[39] Without a thorough investigation of releases from Unlined Landfill Areas A & B, Casella is not able to demonstrate that pollution from Unlined Landfill Areas A & B is not causing, or will not cause, an exceedance of the groundwater enforcement standards at compliance points.

Lined Landfill Areas

At least some of the lined disposal cells also appear to be leaking pollution into groundwater. According to Casella, compliance groundwater monitoring wells MW-E1, MW-P6, MW-103, MW-703, MW-805-S, and MW-805M are downgradient from lined disposal cells and are not impacted by

[35] Waite-Heindel Environmental Management Water Quality Report at 30 (July 13, 2017) ("The statistical exceedances of groundwater standards for organic compounds in MW-A1, MW-D2 and MW-F1 are likely the result of migration of leachate from the Unlined Landfill Areas A & B.").
[36] Letter from Kasey Kathan, DEC, to Joe Gay, New England Waste Services of Vermont, Inc. (Jan. 9, 2018).
[37] Email from Craig Heindel to Kasey Kathan Re NEWSVT New Northeast Wetland Wells (Mar. 1, 2018).
[38] *Id.*
[39] Email from Kasey Kathan to Wendy Shellito Re NEWSVT New Northeast Wetland Wells (Mar. 1, 2018).

Unlined Landfill Areas A & B.[40] Casella has acknowledged that "GES exceedances [of inorganic contaminants] in these wells are greater than the concentrations in up-gradient monitoring wells."[41] The Agency has noted "concern [over] the continued inorganic contaminant exceedances down-gradient of the lined portion of the facility and without direct influence by the unlined portion of the landfill" given that the concentrations of these contaminants in the down-gradient wells "are above the concentrations in the up-gradient monitoring wells that are available."[42]

In 2016, in response to the Agency's request for additional analysis, Casella suggested that GES exceedances in MW-E1, MW-P6, MW-103, and MW-703 could be expected due to the fact the wells are located in "shallow groundwater in wetlands" and recommended no further action beyond continued observation.[43]

In the same 2016 memo, Casella documented significant exceedances of several parameters in MW-805-S:

Parameter	Concentration	GES
Total Arsenic	49 ppb	10 ppb
Total Chromium	150 ppb	100 ppb
Total Lead	57 ppb	15 ppb
Total Nickel	230 ppb	100 ppb

Casella noted that the well was difficult to sample due to the characteristics of the well and proposed to discontinue sampling at the location and install a deeper well nearby.[44]

The most recent monitoring report continues to document statistical exceedances of primary or secondary GES for at least one inorganic contaminant in each of these wells.[45] In addition, in May of 2017, benzene appeared in concentrations above the Preventative Action Level in MW-805-M, the well installed to replace MW-805-S. It is not clear whether a thorough investigation has been conducted to evaluate Casella's conclusions that the GES exceedances in these wells are not caused by landfill activities. Without a thorough investigation of potential releases from the lined disposal areas, Casella is not able to demonstrate that pollution from the lined disposal cells is not causing, or will not cause, an exceedance of the groundwater enforcement standards at compliance points.

[40] Waite-Heindel Environmental Management, NEWSVT October 2017 Semi-Annual Water Quality Report, 7 (Dec. 15, 2017); Memorandum from Waite-Heindel Environmental Management, to Kasey Kathan, DEC, and Joe Gay, NEWSVT (Mar. 28, 2018) (addressing GES exceedances downgradient of lined solid waste cells).
[41] Memorandum from Waite-Heindel Environmental Management, to Kasey Kathan, DEC, and Joe Gay, NEWSVT (Mar. 28, 2018) (addressing GES exceedances downgradient of lined solid waste cells).
[42] Letter from Kasey Kathan to Joe Gay (Feb 26, 2016).
[43] Memo from Waite-Heindel to Kasey Kathan and Joe Gay Re GES Exceedances Down-gradient of Lined Solid Waste Cells (Mar. 28, 2018).
[44] *Id.*
[45] Waite-Hendel Environmental Management Water Quality Report at 13 (Dec. 15, 2017).

B. The applicant has not evaluated the potential impact of PFAS from the Landfill on groundwater.

PFAS is present in leachate generated by the Landfill.[46] According to the Vermont Department of Health (VDH), "some studies in people have shown that certain PFAS may: [a]ffect growth, learning and behavior of babies and older children; [l]ower a woman's chance of getting pregnant; [i]nterfere with the body's natural hormones; [i]ncrease cholesterol levels; [a]ffect the immune system; [and i]ncrease the risk of cancer."[47] In light of the discovery of three new PFAS compounds in Vermont, VDH has recently issued a more stringent Health Advisory for PFAS, which is 20 ppt total for perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic aci (PFHxS), perfluoroheptanoic acid (PFHpA), and perfluorononanoic acid (PFNA).[48] The Agency has revised the Groundwater Protection Rule to adopt the new Health Advisory as a groundwater enforcement standard.[49] As part of a statewide effort to evaluate the presence of PFAS in landfill leachate, leachate from the Landfill was sampled in January of 2018.[50] The sampling results documented "elevated concentrations" of PFAS in landfill leachate, "with the highest concentrations at the NEWSVT landfill."[51]

In April of 2018, the Agency directed the applicant to assess the presence of PFAS in groundwater downgradient of the Landfill.[52] Casella has submitted a plan to test for the presence of PFAS in just one monitoring well near the Unlined Landfill Areas A & B. The sampling plan does not document how testing from just one well—with no testing of groundwater monitoring wells downgradient of lined disposal cells—is representative of conditions at the Landfill. In addition, the sampling is not expected to occur until the Fall. Without a thorough investigation of potential PFAS releases from the Landfill, Casella is not able to demonstrate that groundwater enforcement standards for PFAS are not exceeded at compliance points.

C. The applicant has failed to demonstrate that the new disposal cells will not interfere with an investigation and remediation of any existing, leaking cells.

As discussed above, the Agency has directed Casella to investigate groundwater contamination near Unlined Landfill Areas A & B, and the investigation is not complete.[53] Similarly, in regard to the lined portions of the Landfill, it is also not clear whether a thorough investigation has been conducted to evaluate Casella's statements that the groundwater enforcement standard exceedances in these wells are not caused by landfill activities. Finally, Casella has not conducted an investigation to

[46] Report from Steven Shaw and Steven LaRose to John Schmeltzer Re Wastewater Treatment and Landfill Leachate PFAS Sampling (May 3, 2018).
[47] Vt. Dep't of Health, Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in Drinking Water, available at http://www.healthvermont.gov/sites/default/files/documents/pdf/ENV_DW_PFAS.pdf.
[48] Agency of Natural Resources, Dep't of Envtl. Conservation, ANR Adopting Emergency PFAS Rules, http://dec.vermont.gov/news/PFAS-emergency-rule (last visited on July 20, 2018).
[49] *Id.*
[50] Report from Steven Shaw and Steven LaRose to John Schmeltzer Re Wastewater Treatment and Landfill Leachate PFAS Sampling (May 3, 2018).
[51] *Id.*
[52] Letter from John Gay to Kasey Kathan, Dep't of Envtl. Conservation (May 4, 2018).
[53] Email from Kasey Kathan to Wendy Shellito Re NEWSVT New Northeast Wetland Wells (Mar. 1, 2018).

evaluate whether PFAS is leaking from unlined or lined disposal cells. Without a thorough investigation of releases from the Landfill, Casella is not able to demonstrate that pollution from the Landfill is not causing, or will not cause, an exceedance of the groundwater enforcement standards at compliance points.

If Casella has not thoroughly investigated how and where the Landfill is leaking or have an approved remediation plan to halt and clean up the releases, Casella cannot demonstrate that the proposed expansion will not interfere with the investigation and remediation activities or exacerbate existing releases of harmful pollution.

D. The applicant has failed to demonstrate that the new cells will not leak pollution into groundwater.

Casella has proposed a double geocomposite liner system, groundwater underdrain collection, and a leachate collection and removal system to prevent pollution from entering ground and surface waters.[54] Unfortunately, the failure of these double composite liner systems is inevitable: "the basic problem with a double composite lined landfill protecting public health and the environment for as long as the wastes in the landfill will be a threat is that some of the waste components in the landfill will be a threat forever, and eventually the plastic sheeting layers will deteriorate, thereby allowing leachate to migrate through the clay layers, ultimately polluting underlying groundwaters."[55] Leachate generation potential will continue for long after waste disposal has stopped.[56] However, plastic liners, or plastic sheeting flexible membrane liners, inevitably fail and cannot be repaired because they are buried under waste.[57] They can develop holes during installation, or develop holes and stress cracks over time.[58] Free-radicals, permeability to low molecular weights, and their inherent diffusion based qualities will also cause plastic liners to ultimately become non-functional.[59] As a former EPA official noted

> The problem with the dry-tomb approach to landfill design is that it leaves the waste in an active state for a very long period of time. If in the future there is a breach in the cap or a break in the liner and liquids enter the landfill, degradation would start and leachate and gas would be generated. Therefore, dry-tomb landfills need to be monitored and maintained for very long periods of time (some say perpetually), and someone needs to be responsible for stepping in and taking corrective action when a problem is detected.[60]

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[54] NEWSVT, Inc., Phase VI Application – Fact Sheet, 4 (May 31, 2018), https://anrweb.vt.gov/PubDocs/DEC/SolidWaste/OL510/OL510.2018.05.31%20Fact%20Sheet.pdf.
[55] G. Fred Lee, Evaluation of the Potential Impacts of the Proposed Expansion of the Casella Waste Management Landfill in Coventry, Vermont 2-3 (Apr. 6, 2004); G. Fred Lee and Anne Jones-Lee, Flawed Technology of Subtitle D Landfilling of Municipal Solid Waste (Jan. 2015), available at http://www.gfredlee.com/Landfills/SubtitleDFlawedTechnPap.pdf.
[56] See, e.g., G. Fred Lee, Flawed Technology of Subtitle D Landfilling of Municipal Solid Waste, 8 (January 2015), available at http://www.gfredlee.com/Landfills/SubtitleDFlawedTechnPap.pdf.
[57] *Id.* at 10-19.
[58] *Id.*
[59] *Id.*
[60] *Id.* at 8.

Casella's own experts have acknowledged that all liner systems will inevitably break down.[61] David Bonnett, a landfill engineer retained by Casella to testify at a hearing in Southbridge, Massachusetts, speaking about the same technology being deployed in Coventry said that "All liners leak."[62] In short, while one or two composite liners may *delay* the release of leachate into the environment, they do not *prevent* it.

As discussed above, the existing lined disposal cells already appear to be leaking pollution into groundwater. The applicant has failed to demonstrate that the proposed disposal cells—similar technology as the existing lined disposal cells that are leaking—will not leak pollutants into the groundwater.

In conclusion, the Agency is simply not able to make a determination that there will be no exceedance of a groundwater enforcement standard at compliance points because the Landfill is already leaking pollution into groundwater, the Agency has not received the most recent results from sampling conducted at the property boundary, the applicant has not yet evaluated the potential impact of PFCs from the Landfill on groundwater, and the applicant has failed to demonstrate that the new cells will not leak pollutants into groundwater. Thus, the Agency may not certify the proposed expansion of the Landfill.

III. Leachate Disposal

As discussed above, leachate generated by the Coventry Landfill likely contains heavy metals, PBDEs, PFAS, and other chemicals of emerging concern. Some of the landfill leachate inevitably escapes the landfill through unlined cells, or through leaks in liners or the pipe collections system. The landfill leachate that is collected and discharged via wastewater treatment facilities also poses risks to public health and the environment.

The leachate generated at the Landfill is pumped to on-site storage tanks prior to being loaded into tanker trucks and hauled off-site for disposal at wastewater treatment plants.[63] According to Casella's application, the Landfill will generate almost 7 million gallons more a year if the expansion is allowed.[64] As discussed above, it is not clear whether this estimate is representative of actual conditions because Casella did not identify the number of open acres in 2015 and 2016 and did not account for increased precipitation due to climate change. Regardless, the leachate generated at Coventry Landfill can be sent to the following wastewater treatment facilities: Montpelier, VT WWTF, Essex Junction, VT WWTF, City of Barre, VT WWTF, Burlington North, VT WWTF, Concord, NH WWTF, Plattsburgh, NY WPCP, and City of Newport, VT WWTF.[65]

Though a step in the right direction, WWTPs generally are not required to remove all types of leachate contaminants from wastewater prior to discharge into surface waters. Sewage treatment is

[61] Town of Southbridge Site Assignment Hearings, May, 2008 Vol. 3, p. 447.
[62] *Id.*
[63] NEWSVT, Title V Air Pollution Control Permit Minor Modification Application, 6-7 (June 2017).
[64] Certification Application, *supra* note 5, C-2.5B Leachate Storage Evaluation, Attachment C Leachate Generation Summary.
[65] Facility Management Plan, *supra* note 16, at 15.

primarily focused on reducing wastewater discharges of so-called conventional pollutants: oil, grease, organics like nitrogen and phosphorous, total suspended solids, and settleable matter. Generally, a discharge permit for a municipal wastewater treatment facility does not require monitoring or set limits for the long list of contaminants in leachate—PFAS, PBDEs, and other chemicals of concern—that are not considered "conventional" pollutants. And, according to a USGS study, many leachate contaminants are still present after leachate is processed by a municipal wastewater treatment plant.[66]

In this case, leachate from the Coventry Landfill is sent to a wastewater treatment plant in Newport, which discharges into Lake Memphremagog, a drinking water source for thousands of Canadians. A member of the Canadian Parliament has recently called on Governor Scott to halt the expansion of the landfill due to concerns regarding the impact of the landfill on a Canadian drinking water source.[67]

IV. Air

When food, clothes, paper and cardboard are buried in a landfill, and it rains or snows on the open landfill cells, the buried waste gets wet. Landfill cells produce methane because water and carbon are both present in the absence of air. The Landfill Gas that escapes all MSW landfills is made up of methane (about 55%), carbon dioxide (45%), and small amounts of oxygen, nitrogen, and other dangerous gases that adhere to the methane from the MSW, like volatile organic compounds and hydrogen sulfide.[68] Landfill Gas smells terrible, and it is also very dangerous because it is flammable and has trace amounts of toxic gases, but because it migrates through soils and accumulates in confined spaces.[69] As such, it can cause asthma and other health problems.[70]

Methane is 28 times more potent a greenhouse gas than carbon dioxide. Landfills are the largest manmade source of methane, and their methane emissions are significant. In 2014, U.S. landfills released about 163 million tons of carbon dioxide equivalent of methane.[71] Considering the shorter life span of methane (12-year atmospheric life[72]), reducing the methane released from landfills should be a priority.

Methane and other dangerous constituents of Landfill Gas always escape the landfill, even if a flare manages the methane or landfill gas to energy system. It is impossible to know how much methane is

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[66] J.R. Masoner, D. W. Kolpin, E. T. Furlong, I. M. Cozzarelli, I.M., & J. L. Gray, J.L., *Landfill leachate as a mirror of today's disposable society: Pharmaceuticals and other contaminants of emerging concern in final leachate from landfills in the conterminous United States*, 35 Environmental Toxicology and Chemistry 906-918 (2015).

[67] Letter from Denis Paradis, PC, Member of Parliament for Brome-Missisquoi to Governor Phil Scott (July 16, 2018).

[68] Standard Permit Application for Solid Waste Management Facility, Volume 2, TLR_III South Area, dated May, 2017, Gas Monitoring Plan, TLR South Area, May 2017, Page 1.

[69] Id.

[70] Erica Gies, *Landfills have a huge greenhouse gas problem. Here's what we can do about it.,* Ensia (Oct. 25, 2016).

[71] *Id.*

[72] U.S. Envtl. Prot. Agency, Landfill Methane Outreach Program, Basic Information about Landfill Gas, https://www.epa.gov/lmop/basic-information-about-landfill-gas (last visited on July 19, 2018).

produced by a landfill, or what percentage of it is captured in a flare or landfill gas to energy system (LFGTE). Kerry Kelly, senior director of federal affairs for Waste Management says it's simply not possible to accurately assess methane leakage. "You can measure how much gas you're collecting. You can't measure how much gas the landfill actually generates," she said.[73]

Estimates by U.S. EPA and scientists outside of the waste industry range from 10 to 90 percent gas capture over the life of the landfill—a large margin for error. Most landfills are certainly on the lower end of capture. Studies have shown that most methane production happens in the operational stage of the landfill, when the landfill isn't airtight.[74] Higher rates of capture are possible once the landfill is sealed, but sealing the landfill slows down methane production.

The only way to ensure that significant amounts of methane are not escaping the landfill is for the landfill not to produce it in the first place. The best practice is to prohibit all organics—food, textiles, paper and cardboard—from the landfill. Food, paper, and cardboard are included in Vermont's Universal Recycling Law. Properly diverting these organics would drastically reduce both the methane produced at the Coventry Landfill and the need for the landfill to expand.[75] For this reason, the Agency should deny the Proposed Expansion until the Universal Recycling Law is fully implemented.

V. Vermont should continue to expand its waste reduction, recycling and composting programs, not expand the landfill.

Rather than expanding the Coventry Landfill, Vermont should focus on continuing to improve recycling and composting rates. Vermont disposed of 40,000 tons less waste in 2016 than it did in 2014. If it continues on that trajectory, in ten years, Vermont's disposal needs might be half what they were in 2014. In fact, Vermont has set a goal of increasing its diversion rates to 50% within two years after it implements the comprehensive food scrap landfill ban.[76] While that ban has been delayed, it would be unwise to permit a 22-year expansion given the State's Zero Waste goals and the real potential to dramatically reduce waste disposal rates.[77]

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[73] Erica Gies, *supra* note 70.

[74] Hans Oonk, *Efficiency of landfill gas collection for methane emission reduction*, Greenhouse Gas Measurement and Management, 129-145 (2012).

[75] Universal Recycling Law (Act 148) (2012), 10 V.S.A. § 6601 et seq.

[76] Dep't of Envtl. Conservation, Waste Mgtm. & Prevention Div., 2016 Diversion and Disposal Report 4 (Oct. 2017), available at http://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/2016-Diversion-and-Disposal-Report.pdf.

[77] It is worth noting that Casella supported the delay of the statewide ban on food waste. Testimony from Casella On S. 285 (& H. 627) Changes to the Universal Recycling Law – Prepared for House Natural Resources Fish and Wildlife Committee 2 (March 21, 2018), https://legislature.vermont.gov/assets/Documents/2018/WorkGroups/House%20Natural/Bills/S.285/Written%20Copies%20of%20Testimony/S.285~Kim%20Crosby~Copy%20of%20Testimony~3-21-2018.pdf ("We recognize that a statewide ban on food waste will be difficult for the Agency to enforce, and it is highly likely that food scraps will continue to be disposed of at the landfill. Furthermore, encouraging additional investments and infrastructure in order to manage a waste stream that is currently being utilized to produce renewable energy for Vermonters 24 hours a day, 7 days a week, where significant investments have already been made, is not a wise sustainable approach.").

In fact, that change could be accelerated if handled properly. According to the State of Vermont Waste Composition Study, Final Report, dated May 2013,[78] Vermont disposes about 100,000 tons of organics a year, all of which is compostable. Vermont also disposes about 100,000 tons of recyclable paper and cardboard. Rather than expanding a dangerous landfill so it can bury 11 million more tons of waste over the next three decades, the State of Vermont and Casella should be responsive to the real needs of Vermonters: reducing waste, composting organics, and actually recycling recyclables.

IV. The Proposed expansion is unjust and inequitable.

Vermont has prospered in recent years with low unemployment[79] and a relatively high median income compared to the rest of the nation.[80] Yet Coventry lags significantly behind the rest of the state. State-wide median household income is over $56,000,[81] while in Coventry, the median household income is $42,500.[82] The poverty rate in Coventry is 24.2%, more than double the state average.[83] The neighboring town of Albany, also significantly impacted by the facility and traffic from the facility, has a median household income of $34,792 and a poverty rate of 20.6%.[84]

The Landfill is not serving the people of Coventry. It is a cash cow for Casella, who has every incentive to continue importing trash from around New England, regardless of local waste reduction efforts.

On the surface, Casella's economic contributions to the town seems significant. Casella paid Coventry about $790,000 in 2017, or $1.50 a ton, according to the Town's Annual Report.[85] In

[78] DEC, State of Vermont Waste Composition Study, Final Report (May 2013), available at http://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/finalreportvermontwastecomposition13may2013.pdf.
[79] Bureau of Labor Statistics, Local Area Unemployment Statistics, U.S. Dep't of Labor (2018), https://www.bls.gov/web/laus/laumstrk.htm.
[80] Gloria G. Buzman, Household Income: 2016, American Community Survey Briefs, U.S. Census Bureau U.S. Dep't of Commerce (Sept. 2017), https://www.census.gov/content/dam/Census/library/publications/2017/acs/acsbr16-02.pdf.
[81] Cubit, *Mind-boggled by Vermont Demographics?*, Vermont Demographics (2017), https://www.vermont-demographics.com/.
[82] Cubit, *Is Coventry the best Vermont city for your business?*, Vermont Demographics (2017), https://www.vermont-demographics.com/coventry-demographics.
[83] Talk Poverty, Vermont 2017, Center for American Progress (2017), https://talkpoverty.org/state-year-report/vermont-2017-report/ (Vermont's poverty rate is 11.9%); Cubit, *Is Coventry the best Vermont city for your business?*, Vermont Demographics (2017), https://www.vermont-demographics.com/coventry-demographics.
[84] Cubit, *Is Albany the best Vermont city for your business?*, Vermont Demographics (2017), https://www.vermont-demographics.com/albany-demographics.
[85] Town of Coventry, Annual Town and School Report 20-27 (2017), http://nebula.wsimg.com/fc06fa65ab2e5148e0c323ec0f016c17?AccessKeyId=4DD01A8995AD548CC45B&disposition=0&alloworigin=1. In 2017, Casella paid $572,497.01 into Coventry's General Fund and $216,965.97 into Coventry's Highway Fund.

comparison, the Town of Southbridge, MA received $6.00 a ton, or over $2.4 million a year, in host fees from Casella Waste, in addition to property taxes and other benefits.[86]

However, as in Southbridge, that is a very small fraction of the money Casella stands to make if this expansion goes through. In fact, Casella is uniquely positioned to profit as one of the few remaining landfills in a region where capacity is steadily decreasing.[87] Casella can charge increasingly higher tipping fees while importing waste from around New England. Casella is currently charging $95.63 per ton to dispose of municipal solid waste from Coventry. If the waste is coming from out of the district, Casella charges $119.88.[88] In 2017, the average tip fee for in the Northeast region was $79.30[89], almost $20.00 less than what Casella is charging.

If Coventry accepts the same amount of MWS as it did in 2017, Casella will be paid approximately $34,350,000 a year in tipping fees.[90] However, if any portion of the waste accepted is from another district, which it inevitably is, that number stands to be much higher. Coventry is keeping this waste permanently—Casella is only required to monitor it for 30 years.[91] This underscores the lack of control the Town of Coventry has over Casella and the Landfill.

There is no doubt that the Coventry Landfill has provided a boost to the local revenue stream; fees from Casella amount to approximately 90% of Coventry's annual general fund budget.[92] However, in the long term, the continued operation and expansion of the landfill is not an asset that will drive future investment and may put Coventry residents in harm's way. And Albany and other towns in the area appear to receive no economic benefit, despite enduring negative traffic impacts and pollution from the Landfill. The Agency must stop the expansion of the landfill to ensure that Coventry does not become a dumping ground for the rest of New England and that all Vermonters have access to a safe and healthy environment.

V. Proposed Expansion will increase birdstrikes, which pose a hazard to aircraft and human life.

The Northeast Kingdom International Airport is a public airport adjacent to the Landfill on its southern border.[93] The proposed limit of the waste to be buried in Phase VI is 2,318 feet from the

[86] Casella disposed of approximately 405, 600 tons of waste at the Southbridge Landfill each year, compared to over 506,000 tons at the Coventry Landfill in 2017. Brian Lee, Casella wants to expand landfill; Company looking at using Charlton, Southbridge parcels, The Free Library by Farlex (Feb. 7, 2015).
[87] Cole Rosengren, CEO John Casella's disposal philosophy, WasteDive (May 1, 2018), https://www.wastedive.com/news/john-casella-disposal-philosophy-CEO/522484/.
[88] Call from CLF to Waste USA (July 17, 2018).
[89] Waste Business Journal, The Cost to Landfill MSW Continues to Rise Despite Soft Demand (July 11, 2017), http://www.wastebusinessjournal.com/news/wbj20170711A.htm
[90] NEWSVT, Quarterly Disposal, Recycling and Composting Facility Reports (2017). According to quarterly reports, Waste USA is accepting 359,200.69 tons of MWS a year. *Id.*
[91] Phase VI Application – Fact Sheet at 23, *supra* note 2.
[92] Town of Coventry, Annual Town and School Report 20-21 (2017), http://nebula.wsimg.com/fc06fa65ab2e5148e0c323ec0f016c17?AccessKeyId=4DD01A8995AD548CC45B&disposition=0&alloworigin=1.
[93] Certification Application, *supra* note 5 at 1-2.

existing runway at the Airport.[94] Presently the Landfill has capacity to accept about 500,000 tons of waste a year for four more years. This expansion would enable the Landfill to operate for another 22 years after that and bury more than 11 million tons at the site. Given that the organic, or putrescible, waste in Vermont comprised about 100,000 tons a year or 20% of the waste stream in 2012,[95] it is reasonable to assume that more than 2 million tons of the 11 million tons of capacity at the site might be for putrescible waste disposal. This considerable increase in the amount of municipal solid waste deposited at the Landfill, especially the putrescible waste, would cause a danger to public health and safety due to potential bird collisions with airplanes arriving or departing from the adjacent airport.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage.[96] Even small birds in groups can bring a plane down, as happened at Logan Airport in 1965, when a turbo-prop aircraft flew into a flock of starlings during take-off and crashed into the Boston harbor.[97] Furthermore, the danger to human life is not just to the pilot and passengers but to those on the ground as well:

> . . . once an aircraft experiences a power loss, or in the case of small aviation, general aviation aircraft, one [bird] comes into the windshield (and that's possible as well), you know the pilot is incapacitated, so where it goes nobody knows. Hopefully they're able to steer away from populated areas, but at that point in time you have a hundred-mile-an-hour wind in your face, you're covered in Plexiglas and blood, and making good decisions at those air speeds and those altitudes is very difficult.[98]

The fact that birdstrikes pose a hazard to aircraft and human health is widely acknowledged. According to the FAA (Federal Aviation Administration), municipal solid waste facilities within 5,000 feet of airports serving piston-powered aircraft (such as the Northeast Kingdom International Airport) are considered "incompatible with safe airport operations."[99] The fact that laws and recommendations from the FAA delineating minimum distances between landfills and airports do specify municipal solid waste landfills, demonstrates the increased danger from birdstrikes from these facilities. For example:

> For all airports, the FAA recommends a distance of 5 statute miles between the farthest edge of the airport's approach or departure airspace and a *municipal solid waste landfill*, if the municipal solid waste landfill could cause hazardous wildlife movement into or across the approach or departure airspace.[100]

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[94] *Id.* at 929.
[95] DEC, State of Vermont Waste Composition Study, Final Report (May 2013), available at http://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/finalreportvermontwastecomposition13may2013.pdf.
[96] Hazardous Wildlife Attractants on or Near Airports, Advisory Circular No. 150/5200-33B, 8/28/2007, U.S. Department of Transportation and the Federal Aviation Administration, p. i.
[97] Ron Merritt, a birdstrike expert and wildlife biologist, and onetime chief of the Air Force Bird Aircraft Strike and Hazard team, Town of Southbridge Board of Health Hearing, May 20, 2008, p. 1877.
[98] Id. at 1879.
[99] FAA Advisory Circular 150/5200-33B, page 2.
[100] Id. at p. 1.

> Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) (AIR 21) prohibits the construction or establishment of a new *municipal solid waste landfill* within 6 statute miles of certain public-use airports.[101]

Finally, the FAA has acknowledged that an increase in putrescible will always result in some increase in bird activity. "In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, no such facility has been able to demonstrate an ability to reduce and sustain hazardous wildlife to levels that existed before the putrescible-waste landfill began operating."[102]

Given the above, the FAA's determinations of no hazard to air navigation due to recertification and expansion of the facility will not prevent undue harm to public health. Allowing an expansion of this magnitude presents undue risk to the public health and safety of people living and working in the area, as well as the pilots and passengers using the Airport. For this reason, the recertification and Phase VI of the Landfill should not be allowed.

Conclusion

Casella has not demonstrated that the recertification and proposed addition of 51.2 acres and approximately 11 million tons of capacity to its current facility is in compliance with the Vermont Solid Waste Management Rules (Rules) and that emissions or discharges from the facility will not unduly harm the public health and have the least possible reasonable impact on the environment.[103] In addition, this expansion will undermine the need to responsibly manage waste through source reduction, recycling, and composting. Thus, the Agency should deny the proposed expansion of the Coventry Landfill for the reasons discussed above.

At a minimum, the Agency should delay any approval until (1) Phase V has been completed; (2) Casella demonstrates that it is in compliance with the Rules and Groundwater Protection Rule by conducting a thorough investigation of releases of pollution from the Landfill and remediating any groundwater contamination; and (3) the Universal Recycling Law is fully implemented, and the Agency determines the actual waste disposal capacity needs of Vermont after full implementation of the Law. Finally, the Agency should no longer allow Ground C&D, Paper Sludge, Contaminated Soils, or Sewer Sludge (regardless of whether it is cut with soil) to be used as Landfill Alternative Daily Cover.

Sincerely,

Kirstie L. Pecci
Director, Zero Waste Project
Conservation Law Foundation

[101] Cited in FAA Advisory Circular 150/5200-33B, page 3.
[102] FAA Advisory Circular 150/5200-33B, page 4-2, c.
[103] Vt. Admin. Code 16-3-200:5 § 6-503(a).

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July 20, 2018

By E-Mail

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Re: MRC de Memphrémagog's Comments on the Draft Solid Waste Facility Certification for Phase VI of the Coventry Landfill, New England Waste Services of Vermont, Inc.

Dear Mr. Bourdeau,

I am writing on behalf of MRC de Memphrémagog and its partner the City of Sherbrooke (collectively referred to in this letter as "MRC") in response to the Draft Solid Waste Facility Certification for New England Waste Services of Vermont's ("NEWSVT") continuing use and Phase VI expansion of the Coventry Landfill. The Vermont Department of Environmental Conservation ("VTDEC") issued the Draft Solid Waste Facility Certification ("Draft Certification") on June 6, 2018, and established July, 20, 2018 as the deadline for public comments. The Certification would authorize NEWSVT to continue operations of the existing facility for ten years and to construct a 51-acre expansion ("Phase VI").

NEWSVT is concurrently seeking an Act 250 Land Use Permit Amendment for the Phase VI expansion.[1] The District #7 Environmental Commission granted MRC preliminary party status in that proceeding, relating to "the protection of water quality in Lake Memphremagog." MRC presented several concerns to the Commission regarding potential impacts to the Lake's water quality that are also relevant to the Draft Certification.

As discussed below, MRC has serious concerns about landfill leachate treatment at the City of Newport's wastewater treatment facility, and the resulting discharge including the potential for leachate-related contaminants entering the Clyde River and Lake Memphremagog. MRC is also concerned about contaminants from the older, unlined landfill cells that are currently migrating through the soil. As a condition of its 2004 Land Use Permit, NEWSVT was required to submit an

[1] Act 250 LUP Application No. 7R0841-13.

application to relocate all waste materials from the unlined cells into new lined cells, because of the unacceptable degree of risk to the Lake Memphremagog watershed.

I. Leachate Discharge at the City of Newport Wastewater Treatment Facility

MRC continues to have unanswered questions about the impact of landfill leachate treatment within the Lake Memphremagog watershed on the Lake's water quality in the long term. These concerns are not new. During the Act 250 permitting of the last major landfill expansion in 2004, MRC presented expert analysis highlighting the risks of leachate disposal.[2] Recognizing that "[t]he need to protect Lake Memphremagog from potential sources of pollution cannot be overstated, given its importance to the U.S. and Canada as a highly-valued natural resource, a recreational/tourist destination, and a drinking water supply for approximately 150,000 people,"[3] the District Commission required, as a condition in the Phase IV permit, that NEWSVT "shall not dispose of landfill leachate at the Newport waste water treatment facility or anywhere within the watershed of Lake Memphremagog within five years of issuance of this permit."[4]

When the five year period expired, NEWSVT submitted the necessary permit application to ANR and received a VTDEC discharge permit to dispose of landfill leachate at the Newport Wastewater Treatment Facility ("WWTF").[5] Under that permit, NEWSVT is authorized to discharge up to 15,000 gallons/day to the Newport facility.

Based on comprehensive sampling conducted in 2004, MRC's expert report concluded that it would be risky and imprudent to discharge leachate into a critical drinking water supply due to the risk of unknown and unregulated contaminants.[6] The report found that leachate analysis "does not include many 'exotic' chemicals, for whose impacts are not known when they bioaccumulate."[7] Considering the wide variety of products found in a landfill—including endocrine disrupting pharmaceuticals—the report urged the Commission to follow the precautionary principle and restrict all leachate discharge into the lake's watershed.[8]

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[2] Act 250 LUP Application No. 7R0841-8, Findings of Fact, Conclusions of Law, and Order at 2–3, 36–43 (Vt. Dist. Env. Comm. No. 7 Nov. 12, 2004) [hereinafter Phase IV Findings].

[3] *Id.* at 1.

[4] Land Use Permit No. 7RO841-8 at 5 (Nov. 12, 2004) [hereinafter Phase IV Permit].

[5] Ex. 008, Discharge Permit No. 3-1406 (Nov. 3, 2011).

[6] Act 250 LUP Application No. 7R0841-8, Ex. 59, Teknika Report at 19–21 (May 26, 2004).

[7] *Id.* at 20.

[8] *Id.* at 19–21.

II. The Draft Solid Waste Certification Fails to Account for the Risk to Public Drinking Water Supplies from Leachate Discharge at the Newport WWTF

Section 7-701(7) of the Vermont Solid Waste Management Rule requires that "the owner and operator shall take all practicable steps to prevent the inclusion of hazardous waste . . . into the waste stream being managed by the facility." Although NEWSVT has committed to certain very basic measures to address hazardous waste on both the "front end,"[9] and "back end"[10] of the waste stream, these techniques illustrate how difficult it is to ensure that unregulated hazardous waste remains out of landfills and landfill leachate. While compliance with such measures may be adequate for other landfills that are not within the watershed of public drinking water supplies,[11] the Draft Certification fails to take into account that treated leachate is discharged directly into a waterbody used as public drinking water supplies by multiple municipalities (albeit ones located in Canada).

Lake Memphremagog currently supplies drinking water to approximately 180,000 Canadians. The Vermont Water Quality Standards afford special status to public water supplies, providing that "waters that are managed for the purpose of public water supplies may be designated in Appendix F as Class A(2) Public Water Supplies."[12] Class A waters, in turn, receive stringent protection:

- VWQS § 29A-106(4): Except as provided for in 10 V.S.A. § 1259(d) and (f), the discharge of wastes other than nonpolluting wastes and stormwater runoff is prohibited in Class A(1) and A(2) waters regardless of the degree of treatment provided.[13]

- VWQS § 29A-204(a)(1): Mixing zones shall not be created in any Class A(1) or A(2) water.

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[9] Draft Certification and Fact Sheet at 47–48; Vt. Dep't. Envtl. Conservation, Procedure Addressing Implementation of 10 V.S.A. § 6606c Requirements for Unregulated Hazardous Waste Diversion at Solid Waste Management Facilities (1994). The "front-end" measures proposed are signs informing customers and haulers what they can dispose of, and sponsored "hazardous waste days." *Id.*

[10] Draft Certification and Fact Sheet at 47–48. The "back-end" measures proposed are random load inspections and ongoing inspection during landfill operation. *Id.*

[11] *See* Solid Waste Management Rule § 6-502 (prohibiting siting of facilities within Class I and Class II Groundwater Areas, watersheds of Class A waters, or within certain zones of a Source Protection Area for public water systems).

[12] VWQS § 29-205.

[13] 10 V.S.A. § 1259(d) and (f) permit discharges from small (1,000 gal/day) sewage systems and agricultural or silvicultural practices respectively.

- VWQS § 29A-204(b)(1): Waste management zones shall not be created in any Class A(1) or A(2) water.

The Solid Waste Management Rule also protects Class A waters. No solid waste facilities may be sited within a "watershed for Class A waters."[14] Despite the use of Lake Memphremagog as a drinking water supply in Canada, because no public water intakes are located in the Vermont part of the Lake, Lake Memphremagog remains classified as a Class B(2) water.[15]

However, notwithstanding the Lake's classification, VTDEC possesses the authority to require additional monitoring, other investigations, or remedial actions when the "operation of a facility, which is otherwise in compliance with its certification, . . . results in an emission or discharge that poses a threat to public health and safety or the environment."[16] Unregulated hazardous waste is likely present in the waste stream and may contaminate treated leachate discharged into a public water supply. Given that the uncertainty and risk surrounding these contaminants—even in small quantities—additional monitoring at the Newport WWTF is appropriate. A simpler solution is to exercise precaution and prohibit leachate discharge at the Newport WWTF, which is within VTDEC's authority.[17] NEWSVT has several other leachate disposal options.

III. Request for Supplemental Information on Leachate Sampling

To fully address whether leachate discharge poses a risk to water quality, MRC respectfully requests the VTDEC to require NEWSVT to present supplemental information from a qualified expert on the fate of landfill-related contaminants treated at the Newport WWTF. Currently, only on-site leachate is tested.[18] Further, MRC requests that the VTDEC require NEWSVT to address the risk from discharging landfill-related contaminants into a drinking water supply. The cumulative effects of leachate discharge on the Lake remains unknown. Landfill leachate could contain contaminants in small quantities that bioaccumulate within fish, or contaminants that present yet undiscovered risks to human health. As the City of Newport and NEWSVT are likely to seek to have more landfill leachate treated within the Memphremagog basin, NEWSVT should demonstrate the prudence of discharging its leachate through the WWTF into a public water supply or propose

[14] Solid Waste Management Rule § 6-502(a)(8).

[15] VWQS App. F ("All waters at or below 2,500 feet altitude . . . are designated Class B(2) for all uses, unless specifically designated as Class A(1), A(2), or B(1) for any use."). Lake Memphremagog has received no specific designation. *Id.*

[16] Solid Waste Management Rule § 6-311 ("Environmental Impairment").

[17] *See* 10 V.S.A. § 6610a(a)(1) (2015). VTDEC may, "upon receipt of information that . . . the disposal of any solid or hazardous waste may present a hazard to the health of persons," issue an order requiring any person to "correct the condition or eliminate the practice which constitutes such hazard." *Id.*

[18] The Leachate Discharge Permit requires quarterly sampling of some contaminants, such as metals, and only annual sampling of many contaminants of concern, such as organic compounds and chemicals. ANR Discharge Permit No. 3-1406 (Nov. 3, 2011).

another solution such as on-site advanced treatment. Given the limits of the current sampling and shared results, MRC has no means of knowing or being assured that leachate discharge through the WWTF protects the quality of the lake and the health of those who depend on it for drinking water.

IV. Request for a Dedicated, On-Site Leachate Treatment Plant

As an alternative to relying on municipal wastewater facilities, MRC suggests that the VTDEC and NEWSVT consider a dedicated leachate treatment facility at the Coventry landfill. With advances in treatment technology and using design standards specific to leachate, such a facility could be a more effective long-term solution. The Coventry landfill will operate for many more years, and leachate treatment must continue during the closure period. Currently, leachate is trucked to facilities in Vermont, New Hampshire, and New York.

On-site treatment possesses several advantages over this current practice. Dedicated treatment with up-to-date technology would achieve superior water quality for Lake Memphremagog as well as Lake Champlain and other waterbodies where leachate is currently discharged. Over the 50-plus year lifetime of the facility, on-site treatment would save countless transportation miles, reducing GHG emissions, road wear, and improve traffic safety and noise. These long-term savings could offset the up-front cost of the facility and lower operating costs. Lastly, an on-site facility would demonstrate VTDEC's and NEWSVT's commitment to protect the general public with the best available technology and alleviate concerns about contamination related to leachate treatment.

V. Relocation of the Unlined Nadeau Cells

MRC is further concerned about the inaction in the face of leaking contaminants from old, unlined landfill cells (the "Nadeau cells"). Preventing contaminants from migrating from the outdated Nadeau cells was a major concern raised by MRC during the Phase IV proceedings. The District #7 Commission shared in this concern. As a condition to the Phase IV construction, NEWSVT was required to "within six (6) months of the issuance of this permit, submit all necessary permit applications and support documents necessary to gain ANR and Act 250 approval for the transfer of waste contained in the unlined landfill cells."[19]

Although NEWSVT applied for an Act 250 permit in 2005 for Phase V,[20] no Act 250 permit has issued nor has NEWSVT pursued the construction of Phase V, most likely due to financial considerations. At the time, the Commission found that: "The unlined landfill cells pose an unacceptable degree of risk to the Lake Memphremagog watershed. These cells must be moved into the new lined cells."[21] However, the only action taken thus far to ameliorate this risk is the

[19] Phase IV Permit at 5.

[20] Application No. 7R0841-11 (May 11, 2005).

[21] Phase IV Findings at 3.

installation of monitoring wells. The latest Waite-Heindel semi-annual water quality report reveals contaminant migration both up and down gradient of the unlined cells:

> *8. Groundwater Between Unlined Areas A & B, and Lined Phases I and II: Replacement well MW-F1 was installed in April 2015 in this zone, and it was sampled for the first time in May 2015. Lab results indicated elevated metals, as well as VOC detections, indicating that, despite the clean fill placed in this excavation, groundwater at this well continues to be impacted by leachate from Unlined Areas A & B flowing toward this monitoring well and its general vicinity.*
>
> *9. Arsenic, iron, lead and manganese levels statistically exceed groundwater standards in many of the up-gradient and down-gradient wells at NEWSVT. These dissolved metals are common naturally-occurring compounds in Vermont groundwater. However, the standards exceedances are generally greater in magnitude in the down-gradient wells, reflecting impacts from the unlined landfill.*
>
> *10. The statistical exceedances of groundwater standards for organic compounds in MW-A1, MW-D2 and MW-F1 in October 2017 are likely the result of migration of leachate from the Unlined Landfill Areas A and B.*[22]

Waite-Heindel's previous sampling reports have reached similar conclusions.[23]

In MRC's view, the intent of the District Commission's requirement has not been met, i.e., NEWSVT's actions to date do not constitute "diligently pursu[ing] all necessary regulatory approvals."[24] Moreover, notable technological advances have been made since 2004, especially in underground water migration modelling. As a result, more suitable mitigation measures may be available to protect the environment over a long time horizon.

NEWSVT's representations in the present certification application indicate that they do not plan any remedial action for the Nadeau Cells and the contamination migrating out of them. Solid waste facilities must comply with the Groundwater Protection Rule and Strategy ("GWRPS").[25] GWRPS § 12-801 requires a landfill to remain within groundwater enforcement standards "at points of compliance." As documented by Waite-Heindel, the monitoring wells exceed the applicable

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[22] Attach. 1, Waite-Heindel Envtl. Mgmt., Summary of Notable Findings in October 2017 Water Quality Report (Dec. 15, 2017).

[23] *See, e.g.*, Attach. 2, Waite-Heindel Envtl. Mgmt., Summary of Notable Findings in May 2015 Water Quality Report (Jul. 7, 2015) ("Lab results showed elevated metals as well as VOC detections, indicating that, despite the clean fill placed in this excavation, groundwater at this well continues to be impacted by leachate from Unlined Areas A & B.").

[24] Phase IV Findings at 35.

[25] Solid Waste Management Rule § 6-303(d).

groundwater standards. But NEWSVT maintains that because the Nadeau Cells are part of a closed landfill, the point of compliance is at the property boundary, instead of 150' for active landfills. Thus, NEWSVT proposes to wait and continue monitoring the wells until "an evident change in conditions that threatens to cause an exceedance at the property boundary."[26] This wait and see approach enables groundwater contaminants—in excess of state standards and outside of any control mechanism—to continue accumulating within the Lake Memphremagog watershed, compounding the risk as well as the cost to mitigate over time.

The purpose of the Solid Waste Management Rule is to "protect public health and the environment."[27] A finding that no action is needed until contaminants exceed standards at the property boundary alleviates NEWSVT's obligation to protect the myriad wetlands and other natural resources contained within the expansive property boundary. The Rule is highly protective of wetlands.[28] Allowing ongoing groundwater contamination from adjacent cells that are technically closed, but under a land use permit condition to be reopened and mitigated, undermines the purpose of the Rule.

At this stage, MRC is not advocating for or against the relocation of waste from unlined cells to the much larger Phase V lined cell (as proposed by NEWSVT), which would be partially located in the wetland. Instead, MRC requests that the VTDEC consider this issue further and consider up-to-date data and expert analyses and require NEWSVT to propose actual state-of-the-art mitigation measures to restrain contaminant migration.

VI. Conclusion

The Vermont Solid Waste Management Rule, in connection with other state water quality regulations, recognizes the significant risks to human health when landfill contaminants escape into drinking water supplies. Lined and capped sanitary landfills, leachate collection, and siting requirements all serve to separate these contaminants from ground and surface waters. But-for their location across the border, the municipal water intakes serving MRC's cities and towns would disqualify Lake Memphremagog as a receiving body for treated leachate. MRC respectfully asks that the Department protect public health by prohibiting leachate discharge into the Lake Memphremagog watershed as if it were a Class A water as defined by the VWQS, or at the least, direct NEWSVT to take sufficient precautions to assure Canadians that their water is actually safe.

As an alternative to relying on municipal wastewater facilities, MRC suggests that the VTDEC and NEWSVT consider a dedicated leachate treatment facility at the Coventry landfill.

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[26] Draft Certification and Fact Sheet at 30.

[27] Solid Waste Management Rule § 6-102.

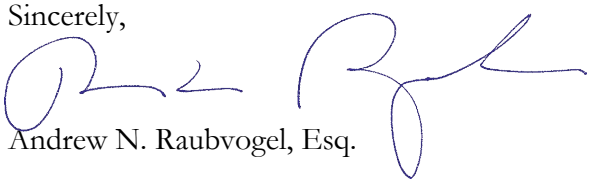
[28] *See Id.* § 6-502 (prohibiting siting within wetlands without further agency review).

With advances in treatment technology and using design standards specific to leachate, such a facility could be a more effective long-term solution.

Leachate discharge is not the only vector for contaminants to enter the Lake's waters. NEWSVT has been directed to move the waste from its leaking unlined cells, which continue to contaminate nearby groundwater. In order to understand the scope of the problem, MRC requests that VTDEC require in-depth analyses to inform what mitigation measures might be taken so that NEWSVT can stop shirking its responsibility to operate a safe landfill.

Thank you in advance for the Department's consideration of the above, and please do not hesitate to contact us with any questions.

Sincerely,



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